UNIVERSITY OF LIVERPOOL

The impact of EU funding upon the management of archaeological monuments within England and the Republic of Ireland with specific reference to agri-environmental schemes

Bishop, H.J.

MPhil Irish Studies

2009

CONTENTS

List of illustrations

Figures

Tables

Colour Plates

5.4 County Mayo, Ireland

5.5 Poulnabrone wedge tomb, the Burren, county Clare, Ireland

5.6 Parknabinnia wedge tomb, the Burren, county Clare, Ireland

5.7 Parknabinnia wedge tomb, the Burren, county Clare, Ireland

6.1 Burderop Down, Wiltshire, England

6.2 Iron Age fortification, Arbury Banks, Northamptonshire, England

6.3 Iron Age site, Castle Dyke, Devon

6.4 Iron Age site, Castle Dyke, Devon

6.5 Roman mosaic, Stanwick, Northamptonshire, England

6.6 Bronze Age ring cairn site, Denbigh Moors, North Wales

6.7 Braunton Burrows, Devon, England

6.8 Braunton Burrows, Devon, England

6.9 Braunton Burrows, Devon, England

7.1 Hennigan's Heritage Farm, Foxford, county Mayo, Ireland

7.2 Sraith Bhuí nó Altóir, county Mayo, Ireland

7.3 Castlemore, county Carlow, Ireland

7.4 Foxford, county Mayo, Ireland

7.5 Glebe Stone Circle, Cong, county Mayo, Ireland

List of Abbreviations

AONB	**Area of Outstanding Natural Beauty**
CAP	**Common Agricultural Policy**
CSS	**Countryside Stewardship Scheme**
DAFF	**Department of Agriculture, Fisheries and Forestry**
DEFRA	**Department for the Environment, Food and Rural Affairs**
DETR	**Department for the Environment, Transport and the Regions**
ELS	**Entry Level Stewardship**
EPSON	**European Spatial Planning Observation Network**
ESA	**Environmentally Sensitive Area**
ESS	**Environmental Stewardship Scheme**
EU	**European Union**
GAEC	**Good Agricultural and Environmental Condition**
HLS	**Higher Level Stewardship**
IFA	**Irish Farmers Association**
LEADER	**Liasons Entre Actions de Développment de l'Economie Rurale**
LFA	**Less Favoured Area**
MAFF	**Ministry of Agriculture, Fisheries and Food**
NFU	**National Farmers Union**
NNR	**National Nature Reserve**
REPS	**Rural Environmental Protection Scheme**
SAC	**Special Area for Conservation**
SMR	**Statutory Management Requirement**
SSSI	**Site of Special Scientific Interest**

INTRODUCTION

'The impulse to preserve the past is part of the impulse to preserve the self. Without knowing where we have been, it is difficult to know where we are going'

Hewison 1987

1.1 Farming in Europe

Throughout Europe farming occupies a central role within the economy and is of vital importance both socially and environmentally. Yet, it is extremely diversified in terms of its geography and structure meaning that the agricultural geography of Europe is extremely complex (Shucksmith et al 2005:1). Farming is an important part of peoples' representations of rurality and it is culturally important even to those who are not directly involved (Holloway 2000:309). Traditionally, the terms 'rural' and 'agriculture' have been regarded as synonymous as, throughout Europe, most rural areas have been almost entirely dependent upon agriculture for their survival. Indeed, the values and practices derived from the farming community are an integral part of rural society (Gillmor 2003:4).

Throughout its long evolution, continuity and change have been inherent features of the countryside. Whilst the pace of change has fluctuated, in recent decades it has increased dramatically in response to technical, economic and social circumstances (Gillmor 1993:200). When England and Ireland joined the European Economic Community, in 1973, their agricultural industry became subject to the Common Agricultural Policy despite pre-existing policy measures already being in place in both countries (Shucksmith et al 2005:26).

The aim of the Common Agricultural Policy (CAP) was to increase the output and efficiency of European farming through modernisation, intensification and specialisation. Such agricultural intensification, throughout Europe, not only resulted in environmental problems but also unsettled the symbiotic relationship that has always existed between the national identity of a country and its rural landscape (Setten 2005:67). Public concern, surrounding the detrimental impact of such farming methods on the environment and the rural landscape, led to the encouragement of more environmentally beneficial farming in the 1980s and, subsequently, to the reform of the CAP in 1992. It became mandatory for member states to adopt agri-environmental schemes which linked agricultural payments to environmental obligations and good farming practice (Gillmor 2003a:6).

Prior to the reform of the CAP, European agriculture had developed the capacity to produce volumes of food that out-weighed domestic demands but at a cost too high to warrant profitability from their sale within world markets. This situation had been sustained by the CAP which had supported the prices received by farmers for their produce at levels that were above world market prices. This resulted in environmentally damaging changes in land use throughout European rural areas and contributed to instability and conflict within world markets. The CAP's ultimate objective of maintaining stable incomes at adequate production levels, particularly for small farmers, was not achieved (Dwyer & Hodge 1996:5).

Substantial changes were made to the way in which agricultural support was delivered under the CAP in 1992, introducing a phased reduction in the level of support for output prices in return for compensation payments based on crop area and stock numbers. These were accompanied by livestock quotas and a requirement to set aside arable land. The reforms also introduced an agri-environmental package which offered EU re-imbursement for environmental schemes appropriate to the needs of individual member states (Dwyer & Hodge 1996:6).

Whilst the primary output of agriculture consists of food products for consumption, it is increasingly recognised that agriculture is also intrinsically linked to the production of what are termed *public goods* which include the rural landscape, cultural features, heritage features, environmental biodiversity and wildlife habitats. Although the countryside has traditionally been the domain of the farmer, in recent times it has assumed a new role. The farmer is now expected to embrace the role of caretaker alongside that of production manager and there is often conflict between the two. This multifunctional role provides an increasingly important justification to the public for the support of agricultural incomes through agri-environmental schemes such as the Rural Environmental Protection Scheme and the Environmental Stewardship Scheme which are funded in part by the European Union and Irish and UK tax payers respectively.

The relationship between agricultural and environmental policies has changed significantly in recent decades and EU special policy now has explicit goals to promote sustainable development alongside the prudent management and protection of both natural and cultural heritage (Shucksmith et al 2005:12). Since the reform of agricultural policy in 1992, in addition to environmental responsibilities, the safeguarding of cultural assets has been

viewed as a vital part of a farmer's work (Setten 2005:68). This concept of *additionality* relates to the benefits that accrue from individual agreements and goes beyond that which the agreements themselves may be expected to achieve under agri-environmental scheme objectives. Such a concept is extremely difficult to qualify in monetary terms. However, the concept may be explained when considering what may have happened if no agri-environmental scheme had been in place. The *additionality* would relate to the degree in which environmental damage is slowed, halted or reversed and the public benefit that accrues (Carey et al 2003:76). Although it is now widely recognised that rural economies can no longer depend upon agriculture alone and need to diversify, through multi-dimensional development which emphasises, particularly, the use of endogenous natural and cultural resources (Gillmor 2003a), the CAP continues to be greatly oriented towards agricultural support.

1.2 The effects of farming upon archaeological heritage

As Lowenthal asserts, memory and artefacts provide differing, but complimentary, routes to the past (Lowenthal 1979a:106) and visible sites and monuments help us to locate the remembered and imagined past through the present day landscape (Lowenthal 1979a:121). As the past decays, both physically and within memory, it is important to make the most of those relics that survive, ensuring that they are celebrated and heralded, protected, restored and recreated (Lowenthal 1979a:109).

In England, as in Ireland, an overwhelming majority of archaeological sites and monuments are situated upon farmland. It has long been acknowledged that the techniques employed in modern agriculture, especially ploughing, cause the erosion of archaeological sites and features. Today, the crop marks and soil marks, identified through aerial photography, are more likely to represent archaeological features than the original upstanding monuments themselves (Wilkinson et al 2006:658). Indeed, research in the south-west of England concludes that 80% of archaeological sites, recorded in the local Historic Environmental Record, are known by crop marks alone (Wilkinson et al 2006:658).

Concerns over food security dominated agricultural policy in the UK both during and after the Second World War. The resulting rapid mechanisation and intensification of British agriculture was exacerbated further when the UK entered the European Union, adopting the

Common Agricultural Policy in 1973. Whilst this will be discussed in further detail in a later chapter, it is important to acknowledge that, although damage to archaeological sites and monuments through ploughing is not a new phenomenon, such intensification of farming has significantly accelerated this trend (Trow 2004:37).

Agricultural change in Ireland has resulted in the removal of field enclosures and the modification of field patterns, many of deep historical interest. For example, in the Burren in County Clare, land clearance operations have obliterated many prehistoric field boundaries (Aalen 1993:106). Yet such activity is not a modern phenomenon and there is substantial evidence of prehistoric landscape change as a result of farming activity in both countries. At Flag Fen, in Peterborough banks and ditches were altered, disregarded and abandoned as Neolithic, Bronze Age and Iron Age farmers adapted the earlier landscapes accordingly (Pryor 2005:171). Today, the fields that once lined the Fengate fen margins are disappearing rapidly and it is unlikely that the Bronze Age droveways or Iron Age field ditches would be of sufficient national significance to warrant scheduling (Pryor 2005:176). Such activity is not restricted to Europe and, in Norway as in England and Ireland, the modern intensification of farming has resulted in a fundamental change to the physical landscape and a substantial amount of registered historic sites and remains have been lost (Setten 2005:72). It is, therefore, vital to examine how agri-environmental schemes can help to protect and preserve this historic environment.

1.3 The necessity for research

Farming, throughout Europe, is moving away from a production driven industry towards one with broader based environmental and social objectives. In order to accommodate such unprecedented change, it has been necessary for the European Union to introduce alternative support measures for farmers. Agri-environmental schemes, such as the Environmental Stewardship Scheme, in England, and the Rural Environmental Protection Scheme, in the Republic of Ireland, have become an integral part of such measures.

Agri-environmental schemes are attracting greater levels of public funding than ever before. Whilst there have been a considerable number of evaluation exercises undertaken, within England and Ireland, since their introduction in the 1980s, Morris (2004) argues that such volumes of expenditure, together with the relative youthfulness of such policy measures,

demands an on-going process of critical examination and evaluation as to their operation and effectiveness. It is a requirement of the European Union (EU) that such schemes are fully monitored and evaluated. Therefore, in order to satisfy these requirements, it is becoming increasingly important to evaluate the effectiveness of agri-environment policies as this is the only means of demonstrating that such policy is of value to taxpayers and is, indeed, delivering the environmental benefits which are intended under such schemes (Green et al 2005:554). In order to achieve such goals it is essential that detailed information, concerning various elements of the landscape, is recorded alongside considerations for the particular agricultural system which is in operation. However, as Kleijnt & Sutherland have demonstrated, such information is not always available to policy makers or researchers and, because monitoring has been poor, it is difficult to assess the actual success of agri-environmental schemes (Emerson & Gillmor 1999:244; Kleijnt & Sutherland 2003:947).

A wealth of academic research exists that assesses agri-environmental schemes from a number of perspectives including the analysis of policy discourses (Erjavec & Erjavec 2008; Erjavec et al 2009), policy implementation theory (Baldock et al1990; Winter 2000), policy and knowledge networks (Morris 2004; Morris 2006; Smallshire et al 2004), actor network theories (Burgess et al 2000) and micro-sociological studies of participation (Morris & Potter 1995; Wilson & Hart 2001). A significant amount of research has been undertaken that considers the relative success of agri-environmental schemes by assessing farmer attitudes and the factors that influence their participation within such schemes. Others concentrate upon analysing the economic costs and benefits of the schemes themselves. Research has not been not limited to the UK (Morris & Potter 1995; Wilson 1996; Falconer 2000 & Garrod & Whitby 2005) and Ireland (Buckley et al 2008; Di Falco & van Rensburg 2008) but extends across Europe (Berentsen et al 2007) and expands globally to include countries such as the USA (Luzar & Diagne 1999) and Australia (Farmar-Bowers & Lane 2009).

However, the long-term impacts of agri-environmental policies, especially the ability of those administering such schemes to sustain the potential benefits produced well into the future, is seriously under-researched (Morris & Potter 1995:52) and an almost universal absence of suitable baseline data means that policies are intrinsically difficult to evaluate. The European Community acknowledges that there is a need to construct a strategic and long-term monitoring and evaluation system (Buller 2000:212; Baylis et al 2008:760;

Matthews 2008). Agri-environmental schemes are now well established in England and the Republic of Ireland and previous research, therefore, needs to be extended to assess policy outcomes and their sustainability.

Take up by farmers has been the primary indicator used to analyse how successful agri-environmental policy has been, yet participation alone is no guarantee that the requirements set out under the scheme have been accomplished (Hynes et al 2008:9; Morris & Potter 1995:61). Additionally, whilst the framework of objectives and participatory conditions is set by government policy makers, the voluntary nature of agri-environmental schemes means that their implementation and success are dependent upon individual farmers. It is difficult to monitor the impact that such schemes have had upon archaeological management and conservation in England and Ireland, retrospectively, making current studies of vital importance for future policy decisions.

In England and the Republic of Ireland, and indeed throughout Europe, previous research, undertaken in order to evaluate agri-environmental schemes, has been aimed at quantifying the non-marketable benefits of the rural landscape produced in monetary terms (Busck 2002; Campbell et al 2006; Ferrari & Rambonilaza 2008). The emphasis has tended to be upon the natural environment and less attention has been given to the analysis of the effectiveness of policies in respect of the built heritage. Additionally, research has tended to be undertaken from a single disciplinary approach, Carey et al (2003) being a rare and notable exception, and has concentrated on single country studies and specific policy measures (Brouwer & Lowe 2000:7). However, agri-environmental schemes have multiple objectives and it could therefore be argued that it is more practical to adopt a multi-disciplinary approach to research (Carey et al 2003:71).

This research aims to redress these imbalances by adopting a multi-disciplinary approach to ascertain the effectiveness of agri-environmental schemes in respect of the built heritage of two neighbouring countries within the European Union. By ascertaining levels of risk in respect of archaeological sites and monuments situated upon farmland, within both England and the Republic of Ireland, as well as quantifying the uptake of agri-environmental policies, farm numbers and monument density, it will be possible to produce much needed base line data at an individual county level. This base line data will then provide essential information

to enable further research to analyse the effectiveness of policy and non-policy measures in key areas of greatest and least risk.

Research is, according to Rumble (1986), a fundamental part of the nation's responsibility for the management of archaeological monuments, as is the responsibility to communicate the findings of that research. Archaeology, as a discipline, helps to provide an understanding of the landscape and aids, not only an appreciation of how the past has evolved, but also allows the prediction of the potential consequences of subsequent change for the future (Darvill 1987:164). Archaeologists and historians have generally been less interested in studying modern day landscape change and development. However, the emergence of a wide body of interest from landscape enthusiasts, conservationists, the tourism sector, policy makers and pressure groups, has drastically raised the profile of landscape preservation and heritage management (Riley & Harvey 2005:271).

1.4 A comparative study

Despite increasing trends towards uniformity, Wilson (1995) alerts us to the fact that the agri-environmental schemes of individual member states are tailored towards their own specific needs, therefore making comparisons between schemes difficult (Wilson 1995:149). Indeed, there is a great and complex spatial diversity within rural Europe, based upon variations in physical, historical, political, economic, social and cultural characteristics (Gillmor 2003a:11). However, England and Ireland share several common bonds. Farming in both countries remains a significant component of the economy and defines the fabric of rural life. England and the Republic of Ireland simultaneously became members of the European Economic Community in 1973, an event which dramatically effected the lives of farming communities across both countries and significantly altered the face of both the English and Irish landscape. Additionally, in both countries, most of the nation's rich archaeological heritage remains in the custody and guardianship of thousands of private landowners and land users.

Gillmor believes that, 'the Irish countryside is often perceived to be the real Ireland, in that its landscapes and peoples are taken to epitomise those physical and human characteristics which are considered to represent Ireland and embody its ethics' (Gillmor 1993). The same is true of the English countryside with natural, traditional and historical patterns in the

landscape allowing individuals to trace their cultural links (Dwyer & Hodge 1996:29). Whilst both countries have been subject to the same European governance since joining the EU, current agri-environmental schemes are sufficiently different to warrant investigation.

Sadly, as agriculture withdraws from less productive farming areas and the number of farmers, in general, continues to reduce the landscape will alter dramatically and there will be significant impacts upon the archaeological heritage. The percentage of utilised agricultural land area under coniferous forestry is already rising rapidly year on year in both England (Stroud 1998:79) and Ireland (Culleton et al 1994:45) affecting features of national and international importance. Farming is essential for the maintenance of blanket bog (O'Leary and Gormley 1998:231) and research undertaken in the bogs of the Killarney National Park (Dunne and Doyle 1998:111) and the heath lands of Connemara (McKee et al 1998:185) demonstrates the positive effects that grazing can have as a management tool in restoring and maintaining landscape. In the absence of farming, natural succession will begin to revert arable and grassland landscapes to scrub and, eventually, to woodland. In addition, the spatial concentration of commercial farming, particularly in Ireland, together with farm enlargement on a scale necessary to maintain international competitiveness will result in greater erosion of archaeological sites and monuments. This is, therefore, a critical time for the archaeological heritage of both England and Ireland and the base line data provided, as a result of this thesis, is both prudent and essential given this fact.

LITERATURE REVIEW

This research aims to assess the impact of European funding upon the management of archaeological monuments within England and the Republic of Ireland with specific reference to farming subsidies that are currently available through specific agri-environmental schemes; the Environmental Stewardship Scheme in England and the Rural Environmental Protection Scheme in Ireland. However, in order to understand where this particular strand of research sits, within a wider framework, it is necessary to review a range of material covering several individual, but inter-connecting, topics.

It has become increasingly necessary, especially for smaller and less profitable farmers in both countries, to supplement their farm income through diversification. Such activities are not restricted to England and Ireland alone but have become a feature throughout Europe as research by Meert et al (2005), in Belgium and the Netherlands, demonstrates. Diversification has been facilitated by both rural development schemes and environmental schemes as well as the ever-increasing potential offered through tourism initiatives; many farmers have begun to follow this route. Given the established links between heritage and tourism, and despite the frequently controversial reciprocal relationship that exists between the two, heritage is increasingly viewed as the essence of tourism, and farmers are growing increasingly aware of the economic potential of both the built and natural environment on their land.

Whilst archaeology is a vital component of heritage, it continues to be at risk from agricultural practices, planning and infrastructural development. However, recent trends in agricultural policy have emphasised the importance of both built and natural heritage and have attempted to promote conservation and reverse the impacts of agricultural intensification.

In order to appreciate the need for the preservation, conservation and management of heritage this literature review begins by examining this key topic in order to understand why, and to whom, heritage is important. This in turn leads to sections on tourism and rural development, followed by a section reviewing farming and policy in both countries and, finally, archaeology and its relationship with farming today.

2.1 Understanding Heritage

Whilst Pocock (1997) describes heritage as a modern catchword it is, undeniably, one that has been, and continues to be, subject to a wide spectrum of attention (Pocock 1997:260). At a basic level, heritage is simply a word that is used to describe cultural traditions and artefacts from the past but, Hardy acknowledges that, it can also be 'a value-loaded concept' whose interpretation will differ according to one's class, gender and locality (Hardy 1988:333). Authors (Lowenthal 1979; Hewison 1987; Brett 1996) are, however, unanimous in their agreement that heritage itself is borne out of a pre-occupation with the past whether through a deepened sense of nostalgia or a longing for authenticity.

Lowenthal argues that accelerated destruction has deepened our sense of nostalgia, not only for the past, but also for an historical identity and a longing to search for our roots (Lowenthal 1979:549). However, whereas history is the remembered record of the past, in contrast, heritage is a contemporary commodity in that it is purposefully created to satisfy contemporary consumption and has become, according to Ashworth, an industry that is now deliberately controlled and organised in order to produce a marketable product (Ashworth 1994:16). Hewison would agree, maintaining that commerce ultimately reinforces our nostalgia, itself part of a longing for authenticity, in order to exploit it (Hewison 1987:29).

However closely history and heritage are linked they serve quite different purposes (Lowenthal 2008:104) and transmit very different things to different audiences (Lowenthal 2008:128). Heritage not only draws upon history but also upon mythologies, folklores and the products of creative imaginations (Ashworth & Larkham 1994:2). In his book *The Construction of Heritage* Brett argues that 'heritage is part of the process of self-definition through historicised self-presentation' (Brett 1996:2). Heritage can, therefore, be used to define ourselves as individuals and groups but Brett also argues that, whilst the study of heritage raises questions about culture and identity, it additionally raises questions about the nation, state and region as well (Brett 1996:87).

2.1.1 Heritage and Identity

Heritage is, according to Graham et al (2000), 'a primary instrument in the 'discovery' or creation, and subsequent nurturing, of national identity' (Graham et al 2000:12) and provides this identity through a range of human attributes including language, religion, ethnicity, nationalism as well as through shared interpretations of the past (Graham et al 2000:18). Johnson reveals that memory, in putting together the constituent parts of the past into a coherent narrative, has also played a profoundly significant role in the emergence of popular nationalist identity (Johnson 2008:318).

Ireland offers an excellent example of how heritage can be used to create national identity with Ireland's Celtic past being 'used to legitimate the exclusivity of nineteenth-century radical nationalism and, subsequently, twentieth-century social order' (Graham 1994:139). Graham argues that material heritage, in the form of the monasteries of the early Christian Church, Iron Age Hillforts and the Megaliths of the Neolithic and Bronze Age, together with representative landscapes, interpreted as unique to Celtic Ireland and the Gaelic world, were selected to demonstrate the longevity and continuities of Irish consciousness, thus creating the nationalism of 'one nation' (Graham 1994:139). This echoes the narrative of Tuan who argues that patriotic rhetoric has always stressed the roots of people and, in order to enhance loyalty, 'history is made visible by monuments in the landscape and past battles are recounted in the belief that the blood of heroes sanctified the soil' (Tuan 1974:99). In the aftermath of the Civil War and during the formative years of De Valera's political career he was keen to stress the continuity of Irish republican endeavour. Ferriter highlights the degree to which he invoked historical figures, including Theobald Wolfe Tone, Charles Stewart Parnell and Patrick Pearse, for his own purposes during his speeches (Ferriter 2007:12). Ferriter points out that practical politics meant that De Valera, like many other successful politicians had to 'effectively exploit history' (Ferriter 2007:13). Today, however, such representations have become outdated and the Irish State is discarding them in favour of a sense of place that 'while encapsulating the unique qualities of Irishness, is also heterogeneous, outward orientated, markedly less Catholic and intensely localised' (Graham 1997:209).

Heritage is also the principal player in the shaping of local representations of place which, in turn, help to strengthen the identity of its inhabitants (Graham et al 2000:204) by satisfying the perceived needs of such localities to 'discover, enhance and express their distinctiveness to themselves and to others' (Graham et al 2000:205). Heritage is able to assume such a key role because of two important characteristics; firstly, it is ubiquitous because all places on the earth possess a past that can be potentially used as heritage and, secondly, because it is infinite in its variety as all local pasts vary from each other (Graham et al 2000:204).

Ashworth and Larkham maintain that heritage is only one aspect of the identity of place which, they believe, is composed of much wider individual satisfactions with ways and qualities of life (Ashworth & Larkham 1994:2). Kneafsey (1995) develops this idea further, concluding that the identity of place is not fixed but is composed of many layers of interpretation and relationship between people, their actions, the environment and social structures and thus has different meanings for different groups (Kneafsey 1995:135).

2.1.2 The importance of Landscape

Landscapes not only provide the physical settings for everyday life but are also an important expression of the relationship that exists between people and place. They result from the interaction between the natural and cultural environment and contribute to a people's sense of place and identity (Natural England 2008). Meinig argues that as the environment sustains us as creatures, so the landscape displays us as cultures (Meinig 1979:3) encompassing an ensemble of ordinary features which constitute an extra-ordinarily rich exhibit of both the course and character of any given society (Meinig 1979:2). Archaeological monuments have been, and continue to be, an intimate part of landscape and their importance and significance will be discussed more fully later.

Like heritage, landscapes are very important to the construction of national identity (Case 2003:128) as they help to picture that identity and can be used to fix meaning (Case 2003:138). Indeed, as Meinig asserts 'every mature nation has its symbolic landscape' (Meinig 1979a:164). Whilst they can be physical, iconological and ideological, the most important meaning attached to a landscape is cultural (Robertson & Richards 2003:2). Landscapes are, in fact, cultural images which hide behind a placid and familiar surface the social, political, economic and spiritual process that have formed them (Meinig 1979a; Robertson & Richards

2003:4). However, as Brace points out, seeing a landscape always involves an imaginative response to it and she advocates that it is this imaginative response that helps to explain why different people have such different responses to places and landscapes (Brace 2006:230)

According to Halfacree (2003) the rural landscape assumes a special place within many cultures due to its symbolic importance in relation to identity and nationhood (Halfacree 2003:142). Such landscapes provide a visible shape in which the nation can be pictured (Daniels 1993:5), and identifying a prototypical landscape, as a representative of the collective identity, can tie a nation to its territory (Agnew 2008:233).

Whilst nationhood in Ireland was concerned with its Celtic past, in England the image of an idyllic rural landscape was a key means of representing the nation (Breese 1998:156). Indeed, in the inter-war years the familiar landscape was available for the narration of the national myth with the English countryside heralded as the site of the 'English spirit' (Breese 1998:158). The Council for the Preservation of Rural England was established in 1926, although such concern for the English landscape was not a new phenomenon as the National Trust had been campaigning on its behalf since 1895 and, even earlier, the Commons Preservation Society in 1865 (Matless 1998:25). As Wright (1985) remarks, English national heritage today borrows many of the trappings of this English utopia (Wright 1985:78) and pastoral scenes lie at the heart of the English psyche and are 'the soul of the nation' (Lowenthal 2000:179). Indeed, many authors (Mingay 1989; Cloke 1993; Bunce 1994; Jones 1995; Bunce 2003; Horton 2008) are aware that an enduring and far reaching image of the English rural idyll, nurtured through mass produced and mediated representations, as well as texts and commodities, clearly exists within contemporary society today.

In Ireland too, the rural landscape is a major cultural and historical legacy (Aalen 1993:72). To the world at large, Ireland is represented through terms such as 'sublime' and 'picturesque' (Brett 1996:38) and Brett (1996) believes that, such terms play an important part in the representation of heritage (Brett 1996:53). Kneafsey (1995) asserts that landscape is an intrinsic part of the identity of a place and argues that it is given symbolic meanings and is closely associated with, not only historic events, myths and legends but, also with contemporary events. These symbolic meanings, she suggests, are imposed on the landscape in different ways by both people who live on the land and by people from 'outside' such as

writers, intellectuals, poets, politicians, planners and tourists (Kneafsey 1995:136). Yet, it is this very association with contemporary events that gives Aalen (1993) cause for concern. He believes that, whilst Ireland's rural life and traditions have been so central to the search for national identity, the rural landscape today, which enshrines so much of the island's history, seems 'so poorly understood, generally undervalued and persistently abused by private and public activities' (Aalen 1993:106).

2.1.3 The evolution of the concept of heritage

So when did our pre-occupation with the past and our nostalgic longings begin? Brett (1996) sets the topic of heritage against the formation of industrial modernity for he believes that the 'violent and painful process' of industrialisation was contemporary with an 'articulate anti-modernism and a pre-occupation with the past' (Brett 1996:15). In addition, he maintains that, throughout the nineteenth century there was a concern with 'nation building' and a belief that the future could be directed by invoking the ancient past (Brett 1996:15). He supports his argument by concluding that modes of visualisation and simulation were predominating features of this industrial and post-industrial culture. Cheap and ubiquitous imagery was sustained by a rapidly developing and highly organised graphics industry and was a necessary condition for the construction of heritage (Brett 1996:86).

Graham et al (2000), however, would suggest that this phenomenon began in the late eighteenth century and identify this period as the earliest era concerned with the deliberate preservation of the past (Graham et al 2000:13). In contrast to both proposals, Lowenthal (1980) dates our modern pre-occupation with heritage to the 1980s (Lowenthal 1980:4). It is possible that each is correct, for Ashworth(1994) believes that the concept of heritage itself has changed over time, in so much as original concerns for the *preservation* of the chance surviving relics of the past evolved over time in to a concern for *conservation* which widened the object of attention to encompass areas and ensembles (Ashworth 1994:15). Indeed, Brett (1996) believes that the use of the term 'heritage' has become extremely 'various and vague' (Brett 1996:1) and Hewison supports this with his view that it is a word without definition (Hewison 1987:31).

It is true that the definition of heritage will ultimately change over time, because it embodies the ever-shifting balance of continuity and change that are characteristic of any

society (Graham 1994:135) but it is rarely vague or undefined. Heritage is so multifaceted that it can exist on a number of levels; private, communal, national and global and, like all relationships; it can be intimate and private as well as open and public. Celebrated and contested, our heritage defines us as individuals and, whilst it can be visible or invisible, tangible or intangible and real or imagined, each individual, group or society will feel able to define their heritage with precision and clarity.

It is perhaps a little naïve to assume that a pre-occupation with the past is such a modern phenomenon. In England, as in Ireland, Bronze Age communities continued to bury their dead within existing Neolithic ritual sites. At Fournocks, south of the Boyne in county Meath in Ireland, several Bronze Age burials were inserted into the mound of the Neolithic passage tomb and there are many examples where later intrusions are found in Neolithic cist burials in Ireland (Ó Ríordáin 1979:135) and, as Aalen (1993) points out, folklore has continued to preserve such sites, over subsequent centuries, far more effectively than recent official state protection (Aalen 1993:73). In England, many of the old or ancient earthworks and monuments became focal points in the landscape devoted to the dead attracting cemeteries of round burial mounds or round barrows. Thomas (2005) argues that such practices resulted from a particular historical way of thinking about the significance of monuments with secondary burials, in the in the ditch of Stonehenge and the bank at Durrington Walls, indicating an actual shift in the kind of discourse to which the site was appropriate (Thomas 2005:47).

More recent impulses to conserve were 'the obsession of a passionate, educated and generally influential minority' and as Graham et al conclude, little has changed in respect of the social, educational and political characteristics of heritage producers since the nineteenth century (Graham et al 2000:14). The analysis of data, by Light and Prentice (1994), from surveys conducted at heritage sites in Wales does, indeed, demonstrate the highly selective appeal of such sites to the middle classes (Light & Prentice 1994:96). They concluded that, a prior interest in the past, and the potential for learning, were important motives for visiting these sites (Light & Prentice 1994:98). The survey also highlighted, however, a significant number of individuals who chose not to appropriate their heritage, amongst them, the less educated, the young and manual workers (Light & Prentice 1994:112).

Lowenthal (2008) acknowledges that feelings of anti-heritage do indeed exist in society. Such feelings vilify heritage as 'selfish and chauvinistic, nostalgic and escapist, trivial and sterile, ignorant and anachronistic' (Lowenthal 2008:88) and he believes that such sentiments stem from a belief that any of it remains authentic (Lowenthal 2008:90). Such feelings are clearly evident in the work of Harvey (2006), Hewison (1987) and Wright (1985). Hewison argues that the comforting representation of the triumphant, undivided nation, carried forward by the heritage industry from the past to the present, is far less exciting and risky than the present itself (Hewison 1987:145), advocating that societies should 'live in the future tense and not the past pluperfect' (Hewison 1987:146). Harvey similarly believes that heritage is *not* about the past but rather has *everything* to do with the future and argues that there are equally enduring symbols of the twenty-first century which are much more meaningful than the typical picture postcard images that are usually portrayed (Harvey 2006:222).

2.2 Tourism

Heritage is the essence of tourism (Timothy 1996:751; Duffy 1994:80) and provides the most important resource for international tourism (Graham et al 2000:20) as it is a dual resource consisting not only of cultural, but also economic, capital (Graham et al 2000:22). Graham et al (2000) argue therefore that, heritage should be approached as an economic phenomenon that is part of a wider economic system (Graham et al 2000:130). Sadly, this has indeed been the case and heritage, today, is continually exploited as a primary component of tourist strategy and for its economic potential in rural and urban regeneration and development.

Tourism is an industry which is seen by many authors (Shaw & Williams 1994:289; Kockel 1994:1; Byrne et al 1993:233; Krippendorf 1987:48) as 'a panacea' for the economic ills of rural or peripheral areas. In areas of high unemployment the heritage industry not only attracts funding, but also provides opportunities for advancement which, Brett (1996) believes, is of great significance within the Republic of Ireland. He argues that its promotion in areas suffering from high unemployment, or acute deprivation, is of great economic significance to those areas (Brett 1996:1). Such dependence upon heritage is not unique to Ireland and Dietvorst concludes that, an identifiable cultural heritage has now become economically crucial to any country (Dietvorst 1994:69).

There is an almost infinite variety of heritages and each one is created for the requirements of specific consumer groups (Ashworth 1994:17). The assets of cultural heritage are almost limitless and form the 'building blocks' of cultural tourism (McKercher et al 2005:541), re-introducing people to their cultural roots and re-invigorating their interest in culture and history (McKercher et al 2005:539). Kneafsey believes that cultural tourism, which takes advantage of this fascination with identity and an emotional attachment to the past, does indeed offer great potential for rural areas (Kneafsey 1994:106). However, whilst it offers such great potential in economic terms, cultural tourism in isolation, is unlikely to resolve the plethora of difficulties currently facing rural communities in both England and Ireland.

The recent plight of rural economies, which have been forced to restructure in response to growing pressures, brought about by increasing global competition, weakening state intervention and reducing state subsidies, is discussed by Shaw and Williams (1994). They maintain that such pressures have resulted in the gradual diversification of rural economies, with tourism often at the forefront of this restructuring (Shaw & Williams 1994:289). The British and Irish temperate climates account for much of the demand for rural tourism in producing the rich green fields and abundant woodland which combine with rolling hills and stretches of water to make up the desired rural idyll (Holloway 1983:201).

2.2.1 England

Over 32 million visitors came to Britain from overseas in 2007 and, in the previous year, the industry was worth approximately £86.6 billion to the UK (Visit Britain 2008 www.tourismtrade.org.uk). Fowler believes that many tourists visit Britain because of its green fields, surrounded by hedges and walls and dotted with farms and woodland in 'a visual patchwork of colourful variety changing with region and season' (Fowler 1992:6). However, Britain's national heritage includes a plethora of monuments, historic homes, cathedrals and similar attractions which play a particularly important role in British tourism (Holloway 1983:456). The powerful attraction is, therefore, the combination of such visible history alongside beautiful countryside (Fowler 1996:6).

The rolling hills and deep green valleys of Devon and Cornwall, together with quaint villages and farmstead settlements, are often seen as being 'quintessentially English' (Harvey 2006:214). Landscape is Britain's archetypal legacy (Lowenthal 2008:7) and tourism has a very

long history in the south west (Harvey 2006:222). The area has an extra-ordinary rich legacy of past patterns and practices that are still evident in the landscape today and it is commonly viewed as one of the most important factors in the area's popularity amongst both visitors and residents (Harvey 2006:207). Around 26 million visitors stay in the south west each year (South West Tourism 2005:1) and contribute a staggering £8 billion annually to the area's economy (South West Tourism 2005:2).

Devon, in particular, has become an iconic landscape and is championed, specifically, in relation to landscape conservation measures. The area contains large areas designated as National Parks, Areas of Outstanding Natural Beauty (AONBs) and a wide range of site specific environmental designations such as Environmentally Sensitive Areas (ESAs), National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs) (Ryley and Harvey 2007:393).

2.2.2 Ireland

Tourism is the largest internationally traded services sector in the Republic of Ireland and is a powerful instrument of national economic development (Fáilte Ireland 2007a). Over eight million overseas visits to Ireland in 2007 earned the Republic just under €5 billion in revenue (Central Statistics Office 2008a www.cso.ie). Government targets aim to increase visitor numbers to 12 million by the year 2012 (Mooney 2005 www.farmersjournal.ie). Of tourists surveyed, 88% listed Ireland's beautiful scenery as an important factor in choosing Ireland as their holiday destination (Fáilte Ireland 2007). Pollard believes that, Ireland, in taking advantage of its unique combination of resources and market links, has carved itself a special niche in world tourism (Pollard 1989:301).

Tourism is allocated particular importance by both the Irish Government and the European Union in the context of supporting rural economies which have been negatively affected by agricultural restructuring following reform of the Common Agricultural Policy (Cawley et al 2002:65). Disadvantaged areas such as the west of Ireland, where there are perceived limitations to farm diversification, are encouraged to view the landscape, heritage and history as the core material from which tourism projects may be generated (Mac Eochaigh 1994:183). This level of importance contrasts sharply with evidence from England and Wales where research demonstrates that there is considerable scope for improving the financial

assistance available for farm tourism, in Less Favoured Areas, where the availability of funding is not generally known to farmers. Indeed, modest budgets in England compare unfavourably to those available in the Republic (Agricultural Economics Unit 1983:27).

Western Ireland's long attractive coastline and extensive upland scenery, combined with the character of its human landscape, people and traditional cultures, make it the most appealing part of the country to tourists (Gillmor 1994:26). Indeed, as Fáilte Ireland West assert, the area is, in many ways, the essence of the Irish tourism product (Fáilte Ireland West 2007:12) and reflects those assets and values that give Ireland its identity in the international marketplace (Fáilte Ireland West 2007:17).

In 1999, rural tourism in the west accounted for 8.3% of the regional Gross Domestic Product, demonstrating its importance as an economic industry (Kelly 2007:172). The most popular tourism activities fell into the cultural/heritage classifications (Kelly 2007:173) and in 2007, of the 2.8 million tourists that chose to visit the west of Ireland, an average of 72% visited the historical and cultural attractions of the area (Fáilte Ireland 2007b). Heritage is, therefore, seen as a key component of the tourist experience and a means of sustaining and developing tourism in Ireland (Kelly 2007:175). In order to communicate the concept of Ireland, as a society where traditions and old world values remain, tourist images of ancient monuments and sites project the country as an island steeped in the history of a past which remains abundantly evident to the present day (Quinn 1994:66).

Regional tourism authorities in both England and the Republic have been eager to take advantage of literary and media associations with particular rural areas (Holloway 1983:204; Shaw & Williams 2000:208). In England, for example, Doone country in north Devon draws on the setting of R D Blackmore's *Lorna Doone* whilst in Mayo, in the west of Ireland, the filming of John Ford's *The Quiet Man,* starring John Wayne and Maureen O'Hara, is particularly appealing to the tourist market. Yet, in both counties, tourism is nothing new. Indeed, in the west of Ireland, throughout the 1890s, hill and mountain walking were widely enjoyed in Connemara and, by the 1900s, a guide book had been published recommending sailings on Lough Corrib and excursions to the Aran Islands (Boran 2007:51).

2.2.3 Constructing place identities and images through the landscape

In order to establish such key areas of tourism it is essential to establish difference so that they stand apart from the rest of the country. Brace (2006) identifies that many of the representations of the South West of England in art, novels and poetry imagine the region as different from, and distant to, the rest of England (Brace 2006:243) and this is mirrored in the west of Ireland. Here, as Nash (1993) suggests, a sense of difference to the rest of the country was used to create a representation of 'true Irishness'. The area came to be seen as a way of access to the Irish past through its language, folklore, antiquities and way of life compared to the rest of the country which was relegated to the status of inauthentic, corrupted by Anglicisation, urbanisation and industrialisation (Nash 1993:86).

In both countries tourism plays a critical role in the construction of place identities and images (Shaw & Williams 1994:14). O'Connor argues that, in the case of Ireland, tourist imagery plays a significant part in providing a native self-image (O'Connor 1993:69) with images of the western landscape functioning as 'a shorthand notation for the landscape of Ireland in general' (Nash 1993:86). Harvey similarly contends that heritage, whilst an important attraction for tourists, is also a crucial element in the way that identities are constructed at a national, regional and local level in England (Harvey 2006:208). Particularly in the South West, many local residents feel that their heritage is 'imbued with a particular regional expression that gives them both spiritual succour and a sense of community identity' (Harvey 2006:212).

2.2.4 Conflict and contestation

However, 'tourism is not, and never has been, a neutral force' (Newby 1994:225). Heritage and tourism can co-exist when tourism does not dominate the local economy; however, once tourism begins to occupy a dominant economic position such co-existence is replaced by exploitation (Newby 1994:209). Given that heritage is used in so very many ways, and is so important to different people for different reasons, it is little wonder that heritage has become a major arena of conflict and contestation (Graham et al 2000:23). Whilst the material heritage of the local landscape is of great interest and importance to the visitor, it is important to remember that it is first and foremost the heritage of the local community and

such enthusiasm 'from above' will inevitably undermine the sense among the local community that it is their heritage and their responsibility (Feehan 1994:100).

In his work entitled *The Holiday Makers*, Krippendorf highlights many of the negative aspects of tourism in rural areas socially, culturally and ecologically. These include changes in lifestyles, loss of cultural identity and impact upon the environment. Often, these have to be accepted if the local population wish money to continue to flow into their area (Krippendorf 1987:48). An opinion poll of the local population in a Swiss mountain holiday resort revealed that tourism had caused deterioration in the quality of the environment, changes to the village, landscape, society, local customs and traditions. In addition they reported that they had experienced a disruption to family and social life as well as corruption to their language (Krippendorf 1987:51). Indeed, Krippendorf argues that these effects can be observed to a varying degree wherever tourism is found (Krippendorf 1987:52). Royle (2003) suggests that, on many Irish offshore islands, heritage has been exposed to the dangers and falseness of over-exposure to the tourist gaze (Royle 2003:23). In Clear Island, county Cork, native Irish has long been confined to the back of the island away from the more tourist-dominated mainland side (Hindley 1994:99).

Duffy argues that 'tourism in Ireland has exploited Irish heritage from the very outset' (Duffy 1994:78). This is, however, understandable given that visits to heritage sites and rural based activities are the most popular activities pursued by tourists in Ireland (Cawley et al 2002:65). He maintains that much of the funding available in Ireland results in a tourism-driven approach to heritage with projects being motivated more by the potential of the tourist industry than any great indigenous interest in heritage (Duffy 1994:80). Often spurred by European Union funding, expenditure in the heritage area, alongside the tourism sector in general, has been grant-led rather than market-led in Ireland (McManus 1997:94). Whilst this is so, although grant assistance programmes are available for tourism ventures, Mac Eochaigh maintains that there remains a need for organisational and educational support in addition to the largely financial incentives which are offered (Mac Eochaigh 1994:187).

Sustainable tourism is the only means of securing a viable long-term future for the tourist industry. The exploitation of scenery, heritage and culture, in order to achieve only short-term economic gain, is misguided (McManus 1997:97); a view which echoes that of

Krippendorf, who warns that 'a one-legged economy, based only on tourism, is more prone to crisis than a well balanced one' (Krippendorf 1987:71).

Heritage is a precious and irreplaceable resource and should, therefore, be about more than simply making money through tourism (McManus 1997:98). As well as wanting to hand it down to future generations, it is something to be appreciated and experienced in the fullest possible way today (Masser et al 1994:31). It is perhaps short sighted to view heritage solely in economic terms without due consideration for the many unquantifiable benefits that it can provide.

2.3 Rural development

Rural development is comprised of a set of strategies that are intended to improve the economic, social and cultural well-being of those who live in rural areas, or depend upon the rural environment for their livelihood, and provide infrastructural support to them (Byrne et al 1993:239). It is necessary in areas where agricultural diversification opportunities are limited or where increasing numbers of small-holders are no longer able to live sustainably from traditional farming enterprises (Byrne et al 1993:238). Over the centuries, farming communities have created the fabric of rural life and, in many areas of England and Ireland, those same communities continue to do so (DETR 2000:90). Agricultural policy and the pattern of agricultural adjustment to the ever changing economic environment will continue to have profound consequences for rural development (Matthews 1986:372). At present, policies are in place, or are being developed, to enhance rural development throughout Europe (Park et al 2009:749).

In the last 60 years, a dramatic change has taken place within rural communities and attempts to promote agriculture as the mainstay of the rural economy have been undermined, resulting in the emergence of a rural population which is not only less rooted in the countryside but has also grown increasingly free of farming as a source of income and employment (Holdaway & Smart 2001:151). The way in which people perceive and value the natural environment has undoubtedly been one of the most important causes of change in rural areas. Indeed, rurality has now become associated with a multitude of consumption and production activities (Courtney et al 2006:469) and demand is growing for the countryside to be constituted principally as a zone of tourism, leisure and consumption, rather than a zone

of production (Shaw & Williams 1994:283). Rural areas now occupy a new position in society and, far from evolving separately from urban areas, changes occurring in rural areas are increasingly influencing changes in a predominantly urban Europe. Rural areas now fulfil functions that are essential to the urbanised lifestyle and urban society is, therefore, intimately linked to the future of these areas. Far beyond their traditional production function, such areas have become an environment for living and leisure (Léon 2005:303).

Concern for the economic problems within rural areas has a long, if somewhat sporadic history, in Ireland. In 1891 the Congested Districts Board was established to promote agriculture, forestry, fishing and industrial development in the western counties and in the 1950s and 1960s a new initiative began, marked by an emphasis on investment incentives, designed to encourage industry to locate to the country's less developed regions (Matthews 1986:373). Despite this, Matthews (1986) believes that, there is currently no comprehensive policy in Ireland that is consciously designed to achieve the overall goals of rural development but rather a range of policies that are directed towards specific sectors and problems such as agriculture, forestry, regional planning, Irish language preservation, amenity development and social services provision.

More recently, in contrast to previous policies favouring rural development through imported enterprises, the role of indigenous resources and initiatives is being emphasised (Matthews 1986:382). In order to overcome rural disadvantages Matthews argues that a more comprehensive and holistic approach will be required. Economic planning responsibilities have been fragmented between large numbers of state agencies meaning that policy formulation often lacked an integrated focus (Matthews 1986:367). However, the notion of an integrated rural development policy, within Ireland, has become increasingly popular (Matthews 1986:384) and this is mirrored within the UK.

In Ireland, it is acknowledged that there has been a major increase in participation by farmers and farm families in the wider rural economy so that the contribution from agriculture alone, to the broader rural economy, has declined progressively (NUI Maynooth et al 2005:6). Whilst, in England, it is acknowledged that agricultural intensification and homogenous development have diluted the character of the countryside (DETR 2000:10). It is estimated that day visitors spend around £8 billion per year in rural England (MAFF 2000:7)

and there has been a major switch in government funding, away from production aids and towards the support of the broader rural economy. New measures have been introduced to develop and promote rural enterprise and diversification as well as training and marketing initiatives (DETR 2000:91).

Whilst recent proposals within the UK place an emphasis on integrated rural development this has not always been the case. Few could have envisaged the extent to which rural issues and controversy dominated political debate in England during the 1990s forcing extensive efforts by the government to develop a new policy framework for the countryside in response to campaigning and protesting amongst rural groups such as the Countryside Alliance (Ward 2002:176). The outbreak of Foot and Mouth Disease, in 2001, opened a new dramatic chapter in New Labour's fraught relationship with the countryside (Ward 2002:179). Whilst the importance of economic development as a goal of rural development is undeniable, the goals of social, civic and community development appear to be surrounded by a great deal more confusion. However, it is argued by authors in both countries (Matthews 1986; Shortall & Shucksmith 2001) that, in order to achieve truly integrated rural development policies it will be necessary to align responsibilities for both social and economic goals. Whilst the public and non-governmental organisations accept that public expenditure, aimed at protecting and enhancing the environmental quality of rural areas, will indirectly result in economic growth and development, evidence of the effectiveness of such policies is very limited (Park et al 2009:737).

A policy discourse has emerged in the UK, reflecting trends across the European Union, that envisages a fundamental change in respect of support policies which emphasise the development of rural areas' capacity to support themselves by moving away from a sectoral approach (agri-culture) towards one that is more territorial (rural) (Shortall & Shucksmith 2001:122). Many of the poorest areas in England are rural yet they are often of high environmental quality (Park et al 2009:735). In both countries radical socio-economic changes have taken place within rural areas with the most important factors determining these changes being the decline of agriculture coupled with the development of secondary and tertiary activities, as well as the acceleration of rural out and in-migration (Park et al 2009:736). Rural amenities are strongly associated with specific territorial attributes whose values stem from the unique features of a given region which can rarely be replaced or

exchanged. Each region, therefore, has an opportunity to enhance its competitiveness through the 'cultivation' of its place-based social, cultural and environmental assets (Shucksmith et al 2005:169) and rural tourism has come to occupy a prominent position in the debate surrounding rural restructuring (Slee et al 1997:181).

Courtney et al (2006) investigated the role of natural heritage in rural development by analysing economic linkages in Scotland. They demonstrated that both tourism and recreation played an important role in bringing external income into rural areas, creating valuable opportunities for the more traditional rural sectors, such as agriculture, to diversify and thus help to buffer the impacts of long-term structural decline (Courtney et al 2006:469). Their findings highlight the need to recognise the wider role that environment and heritage play in rural economies by underpinning certain types of economic activities but, especially, the positive and broad based role played by tourism-related activities (Courtney et al 2006:481).

With the recent discovery of the 'local' and the growing importance in identity, Richards and Hall believe that 'community' has now been placed at the forefront of discussions concerning tourism development (Richards & Hall 2000:5). Research undertaken by Slee et al, in the Badenoch and Strathspey district of Scotland, demonstrates that a tourism strategy which focuses on small scale tourism providers will result in a tourist industry that it more fully embedded in the local economy and is more likely to generate higher levels of 'knock on effects' in the local community (Slee et al 1997:190). However, Straaten argues that such plans will have a difficult start if they do not involve local communities from the outset. He advocates that, a stronger connection will be formed using a 'bottom up' approach rather than a 'top down' one (Straaten 2000:231) and there is certainly evidence in support of this.

Stocks (2000) demonstrates that, in the Mayo Gaeltacht region of Ireland, the active involvement of local people at every stage in the development of cultural tourism within the area, through the sympathetic development of such a 'bottom up' approach, has helped to retain the integrity of local cultures and heritage (Stocks 2000:241). In contrast, however, Kneafsey demonstrates that, in the Gaeltacht region of Connemara, the absence of a bottom up approach was damaging. Here, the local community suffered from a feeling that development activities were imposed 'from above' resulting in the emergence of a somewhat

cynical attitude towards projects undertaken and passivity towards the economic possibilities presented by the local environment (Kneafsey 1994:111). Cawley and Gillmor also favour a 'bottom up' approach towards rural tourism development, believing that it creates sustainability and makes optimal use of resources whilst, at the same time, protecting and enhancing those resources (Cawley and Gillmor 2008).

However, there is evidence to suggest that, perhaps, a multi-level management approach is more appropriate, incorporating local knowledge and experience within enabling local and extra-local institutional structures (O'Rourke 2005:483). This is demonstrated by O'Rourke in respect of in the Burren National Park (O'Rourke 2005:483), and by Waterton in respect of the Hareshaw Linn Community Project, Northumberland National Park (Waterton 2005:319). Whilst local communities are, indeed, often best placed to identify opportunities and individual challenges, they often do not possess the knowledge and expertise required to achieve their goals. A multi-level management approach resolves this difficulty enabling all parties to participate at every stage. However, as Byrne et al argue, it is first necessary to build a strong network of community groups, train community leaders and encourage local participation in the activities, in order to foster strong relationships among the various project partners and forge links between statutory, business and voluntary sectors (Byrne et al 1993:239). As Léon (2005) asserts, rural development concerns people and not just areas and activities, 'their welfare cannot be dissociated from that of society as a whole' (Léon 2005:305).

The current comparative advantages that rural regions possess are related to the assets of the countryside, mountains and coastlines. Such assets are expressed in both natural and manmade landscapes as well as rural constructions and provide amenities that are much sought after especially by a growing urban society. Large proportions of these public goods have been produced by farming down the centuries and are still largely reliant on farming to protect, maintain and develop them. Léon argues that, by taking advantage of the 'multifunctional character' of their activity, farmers can play a decisive part in rural development (Léon 2005:308).

2.4 Farming

As the great majority of rural land is used for agricultural production the actions of those farming the land ultimately determine the character of the countryside (Dwyer & Hodge 1996:19). Agriculture occupies a unique role as the main 'traditional way of life' from which many community habits, structures and even language are derived (Shucksmith et al 2005:16).

2.4.1 Agricultural Policy

Farming provides an important backdrop to a broad range of rurally based activities (Courtney et al 2006:481) and there has been a gradual shift in agricultural policy to align it to a broader rural agenda. It is now increasingly linked with the rural environment and farmers receive payments for the management of the countryside rather than for production (Holdaway and Smart 2001:151)

Farmers, together with their farming practices, have come under much political and moral scrutiny, both practically and ideologically, due to their role in safeguarding landscapes which are seen as both natural and cultural heritage (Setten 2005:68). From as early as 1963, with the publication of Rachel Carson's *Silent Spring*, which highlighted the devastating effects of pesticides and herbicides on wildlife, the role of agriculture has changed and it is now perceived as an enemy of the landscape and nature (Matless 1998:280). By 1980, and Marion Shoard's publication *The Theft of the Countryside*, the farmer had passed from the role of guardian to that of chief executioner and agent of destruction (Shoard 1980:9,11). Yet, the exploitation and conservation of the countryside has been accommodated consistently by many farmers, through their business and nurture needs, on a daily basis. Business and nurture were not seen as conflicting forces until farmers were forced into confrontation with other views, of farming and the countryside, which challenged their own (McEachern 1992:167). This left many farmers feeling that their past, present and, indeed, future landscapes were being challenged and, in many ways, morally condemned (Setten 2005:74).

Stewardship seeks to reconcile the contradiction, between the exploitation and conservation of the countryside, which emerged as a result of the modernisation and industrialisation of agriculture (McEachern 1992:161). Farming, as a focal point, is now being

replaced by a much broader view that encompasses the rural economy, local communities and the environment, as a whole, and which requires a far more integrated policy approach (Holdaway & Smart 2001:152). Indeed, at a review of European Community rural development policy and funding in 2003, Franz Fischler stated that society expected all farmers to take on new roles and responsibilities with rural development policy being the key community instrument to help them face such challenges (O'Brien 2006 www.farmersjournal.ie).

2.4.2 Farming in Ireland

Gillmor (1993) describes the Irish countryside as 'a priceless asset'. However, despite the beauty of the Irish landscape it can not simply be viewed as 'scenery' for recreational purposes because it is also a place in which people live and work (Drew 1993:13). Land ownership and control has always been a critical factor in Irish rural history and remains a strong influence over attitudes towards land in Ireland today. Indeed, so strong are the considerations of land ownership over land use, much land remains neglected despite its perceived importance (Aalen 1003:150). Aalen argues that there are two fundamental, but contrasting, attitudes towards land ownership in Ireland. The first views land as personal property and a commodity to be traded at will. The other view is, however, incorporated in a sense of stewardship that recognises a responsibility towards the recognised interests of a wider community and succeeding generations (Aalen 1993:151). Sadly, participation rates in stewardship schemes within Ireland demonstrate that the first view is still the more dominant.

In terms of its total share of employment and Gross Domestic Product, agriculture remains a significant component of the Irish economy (Walsh 2007:158). Agricultural policies overshadow all other European Union programmes in Ireland in terms of their budget share and the political resources that are devoted to their resolution (Convery 1989:10; Walsh 2007:158). Indeed, as Gillmor asserts, much of the attraction for Ireland of initial membership to the European Community was the perceived benefits which would accrue to the agricultural sector under the Common Agricultural policy (Gillmor 1989:174).

Irish farms are predominantly small to medium in size although the area farmed tends to diminish north-westwards with small holdings being a particular feature of the west (Gillmor

1989:178). Numbers of farmers has dropped drastically in recent decades and only one fifth of farmers now earn their living solely from productive agriculture. For half of Ireland's farmers, production agriculture accounts for only a small fraction of overall farm income (Feehan 2003:522) and part-time farming has become a distinctive feature of the Irish agricultural labour force as small holders seek alternative sources of income (Gillmor 1989:177). Many have had to resort to part-time farming because they would simply not be able to survive on the income derived from production alone (Feehan 2003:522).

Walsh demonstrates that direct payments can account for more than 100% of a family's farm income when market-based output is insufficient to cover total costs (Walsh 2007:166) and this is especially true on farms in the west of Ireland (Walsh 2007:162). Many western farms remain viable only through income resulting from bed and breakfast enterprises, seasonal tourism employment or factory work (Whelan 1997:102).

There is general agreement that the number of farmers in the republic will 'decline substantially' in the future and it is estimated that by 2025 there will be less than 10,000 fulltime commercial farmers and 30,000 part-time farmers who will derive a significant proportion of their income from cattle and sheep production alongside farm forestry and biomass enterprises (NUI Maynooth et al 2005:10). This will result in substantial changes in Ireland's rural landscape with commercial farming areas concentrated in Munster and south Leinster with extensive beef and sheep farming areas, belonging to part-time farmers, in border, midland and western regions. Additionally, withdrawal from agriculture in marginal farming areas, especially in north-west and western areas, will jeopardise the amenity-tourism value of these environmentally important rural areas (Maynooth et al 2005:14). As Dwyer and Hodge maintain, 'farmed land has a significance beyond its capacity for agricultural production' (Dwyer & Hodge 1996:4) and many of the areas most severely threatened by agricultural decline are the main repositories for natural and cultural heritage in Ireland (Dunford 2008:19).

2.4.3 Farming in England

In 2008, agriculture contributed £6.8 billion to the British economy (DEFRA 2009 www.defra.gov.uk) and, whilst farm incomes rose steeply in the early 1990s, in recent years they have fallen sharply as a result of global competition and the effects of BSE (DETR 2000:9)

and Foot and Mouth Disease. In real terms, farm incomes in the UK are now as low as at any time in the last 30 years (University of Reading 2009 www.ecifm.rdg.ac.uk).

Despite its decline, agriculture continues to dominate the rural English landscape and has become culturally important to those not directly involved in agriculture and is an important part of peoples' representations of rurality (Holloway 1999:309). In England, as in Ireland, the countryside has been redefined from a productive space to a series of spaces of production and consumption, involving the use of the countryside for the achievement of leisure pursuits and lifestyle choices (Holloway 1999:308).

The Ministry of Agriculture, Fisheries and Food (MAFF) acknowledge that many rural communities in England continue to go through difficult changes (MAFF 2000:1) and have pledged to help them by reforming the European Common Agricultural Policy away from production quotas and subsidies, towards more competitive markets, whilst also supporting objectives for protecting the environment and developing rural economies (MAFF 2000:6). Whilst environmental management is increasingly important in farming, for most farmers, it remains a secondary objective (Courtney et al 2006:470) with future prospects for the industry remaining uncertain (University of Reading 2009 www.ecifm.rdg.ac.uk).

In parallel with the evolution of agricultural policy, and in alignment with a broader rural agenda, the former Rural Development Commission has played a significant role in encouraging diversification amongst farmers, especially in defined Rural Development Areas which currently embrace 35 percent of the English countryside and include a significant part of the south-west (Holdaway & Smart 2001:151). Diversification has been encouraged at all levels not just the local level of the farm, but also at a wider regional, and sub-regional level (Holdaway and Smart 2001:151). Whilst research shows that, farm based tourism enterprises are one of the most feasible ways for farmers to augment their income (Agricultural Economics Unit 1983:1) in many rural areas of England tourism alone is not able to provide a full time alternative to farming (Shaw & Williams 1994:294). Those who need to diversify most find it hardest to do so (McNally 2001:256) or do not consider it an acceptable activity (Meert et al 2005:92) and, despite the relatively large number of farmers, the scale of tourist activities has been shown to be relatively small and appears to be very much a supplement

to, rather than a competitor of, agriculture (Agricultural Economics Unit 1983:26; McNally 2001:256).

The Countryside Alliance is adamant that the rural English countryside must continue to be an area for the production of food. They argue that, whilst non-food crops and tourism, alongside off farm non-farming activities, will continue to contribute to farm incomes, such activities will mean that the land is not managed and the character of the countryside, so vital to the tourism industry, will be lost (Countryside Alliance 2004 www.countryside-alliance.org.uk).

2.4.4 Farming the heritage in England and Ireland

The importance of agriculture in maintaining cultural heritage has been expressed within both English and Irish agricultural policy discourse. It has also become an issue in World Trade Organisation negotiations and EU documents demonstrating its importance as an international concern. However, the relationship between agriculture and cultural heritage represents a challenge because, agriculture is both a system of land use, and an economic activity, and the conservation of cultural heritage places limits upon that use (Daugstad 2006:67). Agriculture is, therefore, both a threat to, and a caretaker of, the cultural heritage (Daugstad et al 2006:68) and the importance of agriculture, for maintaining cultural heritage, has become an international concern (Daugstad 2006:67).

In England, agricultural intensification has led to the loss of many traditional features of the landscape such as hedges, orchards, woodland and semi-natural grassland. In some of south west England's most intensively farmed areas, the amalgamation of fields and the removal of hedgerows particularly weakened the structure of the traditional rural landscape (Overton 2006:127). It has also resulted in a fundamental alteration to the physical landscape and the loss of a substantial number of archaeological sites (Setten 2005:72).

Ancient sites situated upon farmland tend to be used normally in the course of farming and without any real intent to do damage. In many cases ancient sites have existed, and still continue to do so, in farmed landscapes. However, many others, including protected sites, have been flattened through ploughing. The shape of many more has been altered through ploughing right up to, or even on to, ancient mounds and banks at the time when it was

farming practice to make every inch of farmland productive (Fowler 1992:96). Fowler argues that the less intensive demands of pastoral farming have mostly been compatible with the survival of archaeological sites, although grazing by pigs and cattle are less favoured forms of kind management when compared to sheep grazing (Fowler 1992:96).

Gillmor advocates a more inclusive regime should be adopted in respect of agricultural development and that, instead of viewing agriculture narrowly and in isolation from other rural activities, it should be promoted as an essential component of the inter-related spheres of socio-economic development, land use policy and environmental conservation within the contexts of integrated rural and regional development (Gillmor 1989:195). It could be argued that current environmental schemes, including the Environmental Stewardship scheme and the Rural Environmental Protection Scheme, by focussing on individual farm plans, disregard the community value or amenity potential of the wider integrated rural landscape. A landscape heritage is a practised heritage, where the value of the past is embedded in the present and it is constructed not only from the past but, also, through present and future landscapes (Setten 2005:74). The countryside cannot be 'fossilised' and must, as it has in the past, adapt to changing conditions (Gillmor 1993:200).

2.5 Archaeology

Archaeology is a significant component of cultural heritage and is interlinked with other aspects of heritage such as history, folklore and mythology (Cooney 1999 conference paper). Landmarks such as monuments, shrines, battlefields and cemeteries are visible signs within the landscape which serve to enhance a people's sense of identity and encourage an awareness of, and loyalty to, that place (Tuan 1977:159). In representing the past, heritage conveys ideas of timeless values and unbroken lineages that underpin identity and provide meaning to human existence (Graham et al 2000:41).

2.5.1 Landscape archaeology

The notion of landscape, as a cultural process, finds its most consistent expression within the fields of archaeology and anthropology (Robertson and Richards 2003:7) and academics argue that studying the landscape as a whole can enable us to demonstrably piece together an understanding of the social use of space and behavioural patterning on a much greater

scale than that offered by single sites or groups of sites (Cooney 1999; Darvill et al 1993; Deeben et al 1999). Feehan argues that 'conservation is not simply a matter of maintaining individual sites and monuments as isolated museums or reserves but rather of maintaining and promoting the diversity and richness of the landscape as a whole' (Feehan 1994:99) so that the landscape context, which gives them richness and meaning, is not lost (Feehan 1994:100).

Conserving isolated monuments and sites in the middle of an otherwise productive agricultural landscape would not protect material heritage. Feehan believes that the great multiplicity of features which form the heritage landscape can only be protected within the concern of a caring and aware community and that the development and growth of increasing awareness as to the nature and value of the heritage landscape is therefore of the utmost importance (Feehan 1994:100). Current farm environmental schemes, however, run contrary to this theory and, in focussing on individual farm plans, promotes individual monuments or sites within a vacuum, so that the sole responsibility for their protection and conservation lies with the farmer, to the exclusion of the local community.

2.5.2 Ireland

Ireland has been occupied for over 9000 years and the remains of the activities, and lives, of previous generations survive within the landscape today. There has been a comparatively high rate of survival of visible archaeological sites in Ireland, when compared to many other western European countries, and Cooney attributes this to the fact that the character of landscape change in Ireland was mostly gradual and piecemeal (Cooney 1999 conference paper). In addition, certain features, such as standing stones and raths, were regarded by those living in Ireland with a kind of superstitious awe which meant that they remained unmolested for many centuries (Aalen 1993:73). However, partly due to agricultural intensification in recent decades, the destruction of these monuments has occurred at a greatly accelerated rate (Aalen 1993:106). Brett argues that the abundance of ancient sites throughout the Republic, together with associated literature and discourse concerning this rich archaeological record, has enabled the Irish to claim special access to a much larger historical territory, that of Celtic Europe. This claim has subsequently been deployed to their

advantage and, in recent years, archaeology has become a cultural commodity that is very highly marketable (Brett 1996:3).

***An Chomhairle Oidhreachta*, the Irish Heritage Council, is responsible for policies which identify, protect, preserve and enhance Ireland's national heritage. Established in 1995, the council aims to promote interest, education, knowledge and pride in Irish heritage and to facilitate its appreciation and enjoyment (Mount 2002:485). However, Cooney argues that, within the Republic of Ireland, legislative frameworks have concentrated upon individual sites and monuments rather than landscapes, despite the fact that international legislature has begun to recognise the importance of the identity and protection of archaeological areas and landscapes as a whole (Cooney 1999 conference paper). It is true that policy in Ireland has been more concerned with designation than with landscape and Aalen believes that, this has resulted in a confused and fragmented perspective and prevented its treatment as an intricate and unified system of elements which continually interact with one another (Aalen 1997:255).**

Since 1999, however, *An Chomhairle Oidhreachta* has been involved in developing strategies which do manage the cultural and natural landscape. This work has been facilitated by the establishment of a Landscape Working Party made up of various representatives from government departments and agencies, local government and universities as well as stakeholder groups (Mount 2002:486). It also operates a community grant scheme to ensure that funding is available to communities, as well as individuals, working at a grass roots level for the benefit of Ireland's heritage (Nugent 2000 www.farmersjournal.ie). Subsequent to this, in its statement of strategy 2008-2010, the Department of the Environment, Heritage and Local Government has committed to providing an enhanced political and legislative framework in order to promote increased public awareness and appreciation of Ireland's built heritage (Lynch 2008:11). A major review of archaeological policy and practice was announced in 2007 (Matthews 2008:15) and a dedicated committee, consisting of government officials, archaeologists, architects, heritage officers and academics from both home and overseas, appointed to oversee these changes (Matthews 2008:16). Only the future holds the answer as to whether this will be successfully implemented.

2.5.3 England

In England, interest in prehistoric monuments can be traced as far back as the Tudor era when, in 1533, King Henry VIII appointed a King's Antiquary. The first legislation was passed in 1882 under the Ancient Monuments Protection Act and since then successive parliaments have amended and expanded this legislation (Darvill 1987:3). English Heritage was established under the National Heritage Act in 1983 and remains responsible for the management of monuments that are in state care. It is also responsible for the protection and preservation of the vast majority of monuments which remain in private ownership and works closely alongside other national bodies such as the Royal Commission on the Historical Monuments of England, the Countryside Commission and the Nature Conservancy Council (Darvill 1987:1).

At a local level, each county in England is covered by some form of Sites and Monuments Record which is operated, mostly, at a County Council level but there is also a countrywide network of voluntary bodies, local societies and interest groups (Darvill 1987:1) providing widespread support for sustaining England's heritage sites. Visits to staffed heritage sites totalled 5.3 million in 2007 (English Heritage 2008) and significant numbers of visitors expressed very positive sentiments towards the preservation of such sites, almost unanimously agreeing that their lives were richer for having had the opportunity to visit (Urry 1990:96). This argument is supported in the document *English Heritage Strategy 2005-2010* which acknowledges that most people now view the historic environment as something that, not only re-enforces their sense of place, belonging and well-being, but also puts quality, variety and meaning into their lives (English Heritage 2005).

Much of England's rich archaeological heritage is found in the countryside meaning that over 95% of the nation's heritage is in the custody and guardianship of thousands of private landowners and land users (Darvill 1987:1). The Field Monuments Act of 1972 introduced a system of compensatory payments intended to discourage owners of scheduled monuments from carrying out damaging activities, such as ploughing and forestry, within prescribed areas. However, this simply encouraged a negative attitude towards the protection of such monuments and, rather than preserving them, many sites were simply left to take care of themselves (Darvill 1987:4).

The Agricultural Act of 1986 was the first piece of legislation which integrated conservation alongside farming practices. It imposed a duty upon MAFF to balance the economic, social and conservational interests of the countryside, including features of archaeological interest, whilst maintaining a stable and efficient agricultural industry. Additionally, it provided for the designation and management of Environmentally Sensitive Areas, one aspect of which allows designation where it is desirable to protect buildings or other objects of archaeological, architectural or historical interest. Within these defined areas funds are available for payment which encourage or maintain particular methods of agriculture that are likely to enhance, conserve or protect certain facets of the landscape (Darvill 1987:39).

The English countryside represents the product of many thousands of years of gradual evolution and change and traces of man's activities have become imprinted upon the landscape (Darvill 1987:6). Yet, as in Ireland, current policies for the preservation of monuments and sites offer little regard to the wider archaeological importance of the landscape. Instead the current legislative framework treats monuments in isolation (Darvill 1987:4) and appears primarily designed to conserve upstanding monuments rather than those which are buried below ground (Wilkinson et al 2006:658). Additionally, Trow argues that, despite over a century of increasingly effective ancient monument legislation in the UK, damage caused to archaeological sites and monuments, especially through cultivation, remains a largely unresolved problem (Trow 2004:37).

2.5.4 Destruction of the archaeology

The archaeology embedded within the modern landscape is a fragile resource that is frequently threatened not only by agricultural intensification, but also land improvement, quarrying, new housing schemes, the installation of gas pipelines and road development (Barrett 1997:250). However, many authors are in agreement that, as the pace of landscape change has accelerated, many of these features have been levelled specifically as a result of agricultural activity (Shoard 1980; Barrett 1997; Darvill 1998; Cooney 1999).

Research, within Ireland, has shown that, since Ordinance Survey work undertaken in the early nineteenth century, 34% of monuments within a specific area have been levelled. Of more concern is the fact that, 11% have been levelled since field work was undertaken for the

Archaeological Inventories of the 1980s, indicating an increased rate of loss more recently (Mount 2002:489).

Conflicting views do, however, exist. Holtorf and Ortman argue that the preservation of sites *in situ* is not sustainable given the limitations of current policy and timescale constraints. They question whether it is correct for local councils to put the conservation of archaeology ahead of the often much needed economic development of an area (Holtorf & Ortman 2008:82). In addition, they debate whether archaeological sites are as irreplaceable as claimed since, an average of almost 100 entries per day are added to the Archaeological Sites and Monuments Record in England whereas, only one site per day has been lost since 1945 (Holtorf & Ortman 2008:83). Finally, given that archaeology is conserved for future generations, Faulkner debates whether it is politically, economically and ethically correct to spend scarce public resources on the presumed interests of future generations (Faulkner 2000).

2.5.5 The way forward

Major shifts in attitude towards the archaeological heritage have been detected in recent decades and archaeology is no longer seen primarily as an object of study but also as a cultural resource that may be exploited for the use and benefit of present and future generations (Deeben et al 1999:177). As part of our heritage, its importance as a key component in tourism strategies, in both countries, is undeniable. Despite this, many authors (Lowenthal 1979; Bastos & Funari 2008; Waterton 2005) assert that, as aspects of our heritage, both natural and built heritage should be viewed together, with both essential to our identity as individuals and as members of society. The correct conservation of both is dependent upon our perception and awareness, of their role in our landscape (Lowenthal 1979:549). Every landscape is a blend of man and nature (Meinig 1979:36) and Tuan believes that, man and nature are two very closely related concepts (Tuan 1971:1; Tuan 1974:59).

It is, therefore, vital to integrate archaeological considerations alongside other environmental and conservational interests, thus encompassing material matters, such as flora, fauna, topography, geology and scenery, together with the spiritual concerns of aesthetics, artists and literary associations, folklore and traditions (Darvill et al 1993:571). Whilst the management of archaeological sites should be tailored specifically to suit the

needs of both the site and the owner, the well being of such monuments also depends upon a healthy rural economy and an integrated approach to land management (Darvill 1987:168).

Monuments which are considered of great importance locally may not be of particular importance on a national scale (Deeben et al 1999:190). Many such sites lie in rural areas and receive broad local support (Deeben et al 1999:191). They require an appropriately archaeology-friendly form of land use to operate alongside periodical management intervention and their conservation will only prove favourable if the goodwill of all those concerned can be guaranteed and the necessary means for conservation made available (Deeben et al 1999:192).

Research in Britain has shown that visitor needs are changing and many increasingly search for an authentic experience through which they are able to gain a deeper understanding of a place and spend longer enjoying its atmosphere (Visit Britain 2005:7). Universal access to monuments is long overdue (Emerick 1998:191) but, with most rural land in private ownership, access can be severely restricted (Shaw & Williams 1994:283). In order for communities to preserve, manage and interpret heritage features on farmland, training is required and additional resources are needed to create small-scale interpretation initiatives which will benefit individual farm households. The provision of support for stiles, paths and maps to direct visitors to features upon the farmer's land, or within the community landscape (Tubridy 1994:166), together with easy access, good presentation, sensible signposting and an informative plaque or high quality guide book are simple tools that will contribute positively to visitor experience (McManus 1997:94) and thus enhance potential farm income.

2.6 Conclusion

Declining farm populations in both England and Ireland have had a detrimental impact upon rural communities and governments, in both countries, now recognise that agriculture, alone, cannot support such communities because farming is unable to provide the necessary employment and income opportunities upon which rural development is dependent. Through integrated rural development policies, governments aim to create a living, working, vibrant countryside in which the environment is enhanced and sustained for the enjoyment of society as a whole. Agri-environmental policies are an integral part of this strategy and

reward farmers for their contribution to the conservation and environmental enhancement of the countryside.

Rural tourism has come to occupy a prominent position in the debate surrounding rural restructuring (Slee et al 1997:181) and agri-tourism, which emphasises sustainable tourism in agricultural areas, has become increasingly significant in tourism planning. Whilst it is acknowledged that tourism is fundamental to the survival of rural economies, the benefits that accrue are not evenly spread across all regions and are seasonal in nature. Different regions will, therefore, have different priorities and it is, therefore, essential that communities are given a voice at every level within the planning and implementation of government policy in respect of rural development and tourism initiatives. However, it is questionable whether sustainable tourism can resolve the difficulties faced by peripheral agricultural areas whilst simultaneously attempting to address environmental problems.

Diversification of farming activities, through tourism enterprises, will undoubtedly bring much needed additional income into the farm budget but, it must be remembered that it is the agricultural activities of generations of farmers that have shaped the landscape. Therefore, if this income is at the expense of the management and maintenance of farmland then the much loved and valued character of the rural landscape, so essential for drawing tourists to England and Ireland, will be lost.

Common Agricultural Policy

'Never in the history of farming has change been so great or so rapid as in the last 50 years'

Feehan, J. 2003

It is impossible to appreciate why agri-environmental policies have been developed and how they have been shaped without first understanding the background to their introduction and how they relate to the failings evident in the Common Agricultural Policy (CAP) of the European Union (EU). A timeline outlining key events is provided in *table 3.1* below.

Table 3.1 CAP Timeline

Date	Event
1957	Treaty of Rome introduces a Common Agricultural Policy to ensure European food self-sufficiency and to preserve rural employment
1960s	Intervention system developed to deliver minimum dairy, arable and red meat prices
1973	UK and Republic of Ireland join the Common Market
1970s -1980s	Concern begins to grow over production surpluses
1984	Milk quotas introduced to limit dairy over-production
1981 - 1991	CAP budget triples to €30 billion a year
1986 - 1993	Uruguay trade round seeks to limit farm protectionism
1993 - 1996	Mac Sharry reforms reduce market support prices and introduce direct payments
2000	Agenda 2000 further reduces market price supports and places more emphasis on rural development
2003	World trade concerns and EU expansion leads to CAP Mid Term Review. Most payments decoupled from production and payments for environmental and rural development schemes increased
2005	Introduction of Mid Term Review changes
2008	CAP Health Check further decouples support and increases environmental funding
2013	Next round of CAP reforms likely

Courtesy of DEFRA 2008

In 1957, the Treaty of Rome introduced a Common Agricultural Policy to ensure European food self-sufficiency and to preserve rural employment. Intervention systems were introduced throughout the 1960s to ensure that minimum prices were received by European farmers for the food they produced whether arable, dairy or meat. For both Britain and

Ireland, accession to the European Union, in 1973, had a significant effect both economically and socially and resulted in profound changes to the agricultural industry of both countries.

Britain's entry into the EU resulted in the most significant changes in agricultural policy since the introduction of the Agricultural Act in 1947. Existing objectives in British agricultural policy did not change fundamentally as control was transferred from London to Brussels although it did lead to a drastic adjustment in the way that support was provided to farmers, removing guaranteed prices and deficiency payments in favour of CAP individual commodity price support regimes and import levels (Martin 2000:133).

Farming plays a far more important part of life in Ireland than in most other European states and accession to the EU has meant that the CAP has played a pivotal role in the economic and social development of the country. Prior to accession, Irish agriculture was strongly focussed upon export to Great Britain which was beginning to grow increasingly self sufficient. However, membership of the European Union offered Ireland unrestricted access to a greatly enlarged market where prices were much more favourable than those available in Britain. As Gillmor argues, 'the comprehensive CAP support system offered an unfamiliar stability' and 'the financial resources of the Community afforded the prospect of much greater state support of farmers than had been possible from the Irish exchequer' (Gillmor 1999:48).

Whilst the CAP proved to be enormously successful from an income support perspective, it was accompanied by unforeseen environmental, social and economic costs that have forced it to be dismantled and restructured towards a more sustainable policy. Policies initially encouraged intensification, regional and farm level concentration and specialisation as well as large scale production and, throughout the 1970s and 1980s, concern began to grow over production surpluses. The nature of the policy encouraged the use of land in ways that were not sustainable in the long-term and allowed yield to become detached from the true carrying capacity of the land resulting in an enormous deterioration in water quality, soil degradation, reduced biodiversity and an erosion of the cultural heritage of Europe's diverse rural landscape (Feehan 2003:504).

The CAP remains the most visible and expensive common policy of the EU but, since the 1992 Mac Sharry reforms, CAP reform has displayed a strong environmental dimension and Council Regulation 2078/92, introduced in that year, has promoted farmers to the role of

manager, steward and custodian of the rural environment alongside their role of food commodity producer (Campbell et al 2006:4). Stewardship seeks to reconcile the contradiction that has emerged as a result of the modernisation and intensification of agriculture between conservation and exploitation, or nature and nurture (McEachaern 1992:161).

In order to guide the operation of the CAP in Ireland a new set of principles were introduced in 1993 that consisted of inter-related components involving supply and control restrictions on certain agricultural sectors. In order to offset resultant losses, compensatory payments were made direct to farmers. Further reforms, associated with Agenda 2000, continued and extended these shifts in agricultural policy. It is clear from this step that an inherent belief that the rural economy can no longer be solely dependent upon agriculture and that policy must break away from its traditional mould has developed (Gillmor 2003b:115).

Agriculture has not developed uniformly across the Republic and, in addition to spatial differences, there has been a widening gap between the prosperity of dairy farmers and other types of enterprise. Dairy enterprises, in particular, have received much government support. Such high income enterprises have become concentrated on larger farms and have benefitted most from modernisation. At the opposite end of the scale, small holders involved in extensive, low income, sheep and cattle farming systems, often with poor quality land, have found it difficult to participate in the benefits of agricultural transformation. This is particularly evident in the northwest and west of the country (Gillmor 1999:55).

As far as England is concerned, damage and degradation of the environment has been an integral part of farming through out the post-war period (Shaord 1980; McEachern 1992) and has been caused by new technologies essential to the modernisation, efficiency and productivist nature in agriculture, duly encouraged through British government policies and later those of the EU (McEachern 1992:160). In the 1990s, a crisis in farming and food, caused by a falling consumer confidence in the food supply system and rapidly declining farm income, ensued and the British government intervened in order to re-orientate the agricultural sector away from *productivity* towards increased *sustainability*.

Policies relating to agri-environmental measures began modestly with the introduction of Regulation 797/85 under which EU member states were permitted to pay farmers in

Environmentally Sensitive Areas (ESAs) in return for their adherence to traditional practices (Van Huylenbroek et al 1999:7) and thus provided the first agri-environmental initiative within European Legislation in 1985. The Ministry for Agriculture, Fisheries and Food (MAFF), in Britain, moved swiftly to set up ESAs and six locations were designated in 1986 followed by a further six the following year. The schemes were welcomed by the National Farmers Union (NFU) and have become something of a *cause célèbre* in terms of conservation within the UK (Baldock et al 1990:145). However, there was only a very limited and brief application of the principles of ESA designation within the Republic of Ireland and the scheme was not piloted until as late as 1991. The pilot scheme operated in two small areas comprising part of the Slieve Bloom Mountains, in the Midlands, and Slyne Head, on the west coast in county Galway, both resulting in negligible interest. Whereas the scheme operates independently of other agri-environmental schemes in Britain, the Irish ESA scheme has been subsumed within the Rural Environmental Protection Scheme since 1994 which has presented a major transformation against a backdrop of such previously limited agri-environmental policy (Emerson & Gillmor 1999:237).

Hennessy et al (2008) advocate that, in recent decades, fundamental transformations have taken place that have lead to a belief that a 'modern agricultural revolution' has taken place, with agriculture having moved away from a productivist regime to one of post-productivity. However, in more recent times, the existence of a multifunctional agricultural regime has become a popular assertion (Hennessy et al 2008:30). Such multifunctional agricultural regimes are defined by Burton and Wilson (2006) by territorialisation with intensively farmed regions that are geared towards the output of agricultural commodities, whilst post-productivist regions aimed at extensification, wildlife and habitat preservation and sustainable countryside management that incorporates non-agricultural activities such as recreation and diversification.

Following the 1992 Mac Sharry reforms, direct payments to farmers became an integral part of the CAP and this shift away from price supports was further advanced in the Agenda 2000 Agreement. The publication of the European Model of Agriculture within the Agenda 2000 Agreement identified the EU as a strong proponent of multifunctional agriculture (Hennessy et al 2008:31). In June 2003, the Luxembourg Agreement was finalised making provision for the decoupling of all direct payments from production with effect from 2005 onwards (Breen

et al 2005:130). This constituted an important shift in agricultural policy within the context of the environment by recognising the role played by farmers in maintaining the landscape and duly providing a payment for this role without requiring them to produce (Gorton et al 2008:322).

Agriculture is, indeed, multifunctional in that it not only produces food but also sustains rural landscapes, generates employment and generally contributes to the viability of rural areas. Multi-functionality discourse has become integrated into the CAP and policy makers acknowledge the need to diversify the income base of farming families by capitalising on additional agricultural products such as biodiversity, landscape and cultural heritage (Erjavec et al 2008:45). As Hennessy et al demonstrate, decoupling reform supports the simultaneous existence of both productivist and post-productivist farming. Prior to decoupling a large number of farmers were operating their farm businesses at a market loss. Decoupling offers these farmers the opportunity to increase farm profitability by ceasing their production completely whilst still receiving payments provided they maintain their land in accordance with European guidelines. Alternatively, they may diversify into a farm enterprise that they can pursue at a profit (Hennessy et al 2008:37). However, this will result in a contraction in production which is expected to result in higher agricultural commodity prices thus offering further financial incentives to those farmers who are more production oriented (Hennessy et al 2008:32).

Approaches towards CAP reform vary across Europe and differences are apparent even between neighbouring countries. France, for example, reinforces the notion of an agriculturally dependent rural economy and, prior to the Mac Sharry reforms, tended to represent something of a template for Irish agriculture. In contrast, reform in both England and Ireland, now looks towards a diverse rural economy to provide crucial additional, or alternative, income sources for farmers. For England, in particular, such policy focus is understandable, when set in context, given the country's recent experience of agriculturally generated catastrophes such as BSE and Foot and Mouth Disease (Lowe et al 2002:15). Similarly, agri-environmental policies vary between member states as the situation of each country's countryside, environment, landscape and agriculture varies accordingly. Traditions, as well as political structures, the assignment of property rights and other factors may all

influence which policy instruments are applied by individual member states (Van Huylenbroek et al 1999:8).

The most far reaching CAP reforms, agreed in Luxemburg in 2003, were brought into operation in 2005. Direct payments were decoupled from production and a single payment to each farmer introduced (Walsh 2007:161). However, whilst agricultural policy has become less production orientated, and more decoupled forms of payment have been introduced, there is little evidence that farmers' attitudes throughout the EU member states have also adjusted. Gorton et al (2008) demonstrate that, farmers continue to overwhelmingly possess a productivist mindset believing that farm survival is dependent upon policy support and rejecting the notion that farmers can be competitive without such supports (Gorton et al 2008:334).

This is particularly true in England where research, undertaken by Harvey (2000) and Turner (2006), demonstrates that, in the north of the country, farmers were reluctant to change their activities and wished to maintain their agricultural focus. In England generally, farmers view government programmes to promote farm diversification with a high degree of suspicion. Gorton et al (2008) found upland grassland farmers to be the most pessimistic about their ability to adapt as they felt it was not feasible to create a significant number of new jobs through enterprise diversification meaning that, they would have no other choice but to rely on the availability of non-farm work within the rural community (Gorton et al 2008:335). Certainly, in Ireland, it is anticipated that the decoupling of direct payments is likely to increase the probability of farmers participating in off-farm employment. Indeed, the time allocated to off-farm work is likely to increase over time (O'Brien & Hennessey 2007:64). In 2004 there were 136,000 farmers in Ireland with 42% of these already working on a part-time basis (Agri Vision Report 2004:18).

Although accession to the EU brought times of great prosperity for Irish agriculture the favourable impacts of the Common Agricultural Policy soon began to suffer set backs and a series of measures, introduced in the 1980s in order to curtail agricultural output, merely widened the already growing gap between the modernised and marginalised sectors of the industry (Gillmor 2003b:114). Both price measures and structural measures have continued to disproportionately benefit those farmers who already own most of the resources and have

lead to a culture of greed which has resulted in the gradual demise of the small farmer as well as practices that have been both socially and environmentally devastating (Crowley 2006:30).

In England too, CAP reform has not been without its difficulties for whilst farmers, as stewards of the countryside, are seen by the British public as being involved in work which is *real* and therefore valued within culture and society, in their business role, they are much maligned for exploiting that same countryside for profit (McEachern 1992:169). Agricultural lobby groups, such as the National Farmers' Union and the Country Landowners' Association have a very close relationship with the Ministry of Agriculture & Fisheries and Food resulting in much power and influence. This has meant that they have been able to effect decisions concerning the implementation of agricultural policy and support and have, therefore, been able to resist the conservationist measures demanded by bodies outside this alliance (McEachern 1992:160).

However, by bringing the landscape to the fore, as a product of agriculture, through environmental schemes, there is evidence that attitudes are beginning to change (McEachern 1992:160). In terms of business, farming creates a landscape based on practical and efficient enterprises but, in terms of nurture, farmers are stewards who must care for the land and the welfare of their animals. Whilst these have emerged as conflicting activities within wider political debate, in the reality of farmers' everyday lives there is no conflict and McEachaern has been able to demonstrate this through her research in the Upper Yorkshire Dales. Here, livestock farming predominates and production tends to be seasonal with the harsh conditions preventing diversification into other types of farming. This seasonal production, alongside the limits of the area, reinforces farmers' representations of their production as working together with nature. To these farmers, farming has become more than just business. The weather, climatic conditions, sheep reproduction or illness are all seen as being part of nature which acts as a limit on their husbandry skills and farm work to provide a dimension that is far beyond technology or finance. Nature permeated their farm work and they could not change or control it. However by combining both the nurture and business aspects of their work they attempted to circumvent it or prevent its worst excesses (McEachern 1992:163).

It is agreed by the majority of interested parties that the CAP still needs further reform and that the major reforms introduced in 2003, which broke the link between production and the

support received from the CAP, need to be reinforced (DEFRA 2008 www.defra.gov.uk). Most European farmers believe that CAP budgets are weak and are allocated inadequately meaning that farmers are not the main beneficiaries of the funding but rather consumers (Gorton et al 2008:323). Additionally, Crowley (2006) believes that agricultural policy makers have become less concerned with the needs of small famers trying to survive in their chosen occupation, in the more marginal and peripheral areas, and more concerned with the recreational needs of urban populations (Crowley 2006:76).

It is against this background that the next two chapters are set. In England, the Environmental Stewardship scheme (ESS) and its predecessor, the Countryside Stewardship Scheme (CSS), were developed in response to the impact of agricultural intensification outside those areas already protected under other agri-environmental schemes such as the ESAs (Morris 2004:81). In Ireland, the Rural Environmental Protection Scheme (REPS) subsumed the earlier, discredited, Environmentally Sensitive Areas scheme to create a new, comprehensive, policy unique across Europe in its availability to all farmers regardless of size or location.

ENVIRONMENTAL STEWARDSHIP

'More than any activity, farming defines the fabric of British rural life'

MAFF 2000:1

4.1 The story so far

England's countryside receives protection through ten national parks, which are administered by the Countryside Commission, as well as through the extensive holdings of the National Trust, Sites of Special Scientific Interest and nature reserves. Additionally, the work of the Nature Conservancy Council and the Royal Society for the Protection of Birds contribute to its protection together with lobbying by the Friends of the Earth and the Council for the Protection of Rural England (Hewison 1987:25). Agriculture is at the heart of the English countryside and farmers make a considerable contribution to both the rural economy and the English way of life.

Whilst the ownership of agricultural land is not currently a major political issue in England it has, as in Ireland, been central to economic and political life in the past. According to Grigg, around 70% of farmers in England own their land with the remainder renting from private landlords or institutions such as the Crown (Grigg 1989:98). The Yorkshire Dales National Park is 98% privately owned and predominated by farming (McEwan & McEwan 1987:106). Farmers play a vital role in managing the English countryside and agri-environmental schemes are at the heart of government initiatives and policies aimed at safeguarding and enhancing important landscapes and habitats by paying farmers to farm in more environmentally friendly ways.

The roots of current environmental policy, in the UK, originated in the 1930s when agriculture entered a depressed state following the collapse of farm prices in the wake of the First World War. As events began to unfold it became apparent that the UK would become embroiled in the conflict that was growing throughout Europe and fears of blockades and food shortages led to a massive effort to intensify agricultural production. The various policies and initiatives adopted began a major transformation of British agriculture and, in 1947, the Agricultural Act recommitted the UK to a more modern and intensified agricultural regime (Dobbs & Pretty 2004:221).

In post-war Britain, agricultural development led to the drainage, clearance, ploughing and reseeding of much marginal land resulting in the loss of large proportions of the nation's semi-natural habitats. Derelict land was reclaimed and permanent pasture land brought under the plough (Douet 1994: 176). Farms became increasingly more specialised and smaller mixed farms were replaced by larger ones. These larger farms concentrated on a smaller number of enterprises leading to a substantial regional differentiation of agriculture throughout the country. The creation of larger fields, through the removal of hedgerows, increased the risk of soil erosion and, as the use of inorganic pesticides and fertilisers grew, it led to the leaching of nitrates and other chemicals into watercourses (Dwyer & Hodge 1996:5).

Britain's entry into the European Union in 1973, and its subsequent adoption of the Common Agricultural Policy, led to a crisis in livestock farming and food production caused by a falling consumer confidence in the food supply system. Rapidly declining farm incomes and intervention by the British government resulted in the most significant changes in agricultural policy since the introduction of the Agricultural Act in 1947. In keeping with events across Europe, the late 1980s and 1990s witnessed a gradual and modest reform of support policy, within Britain, under the CAP. There has since been a gradual shift away from out-put related support towards area based payments and payments in relation to the supply of environmental goods such as wildlife habitat and landscape quality (Hanley et al 1999:67).

The introduction of agri-environmental schemes in the UK in fact predates the CAP reforms of 1992 by a number of years. Such schemes were introduced largely in response to the successful campaigning of environmental groups, responding to the adverse impacts of modern agriculture upon the rural environment, but also as a result of legislation within the EU. These voluntary schemes have been devised by a collective of experts from environmental and conservation agencies in addition to the government's agricultural department (Morris 2006:116). Whilst it is possible to dismiss agri-environmental schemes as a mere distraction to the principal business of agro-food system restructuring, such schemes represent an important and tangible step towards the development of more sustainable farming systems. Increases in the level of agri-environmental scheme funding, within the UK in the wake of the Agenda 2000 round of CAP reforms, are testament to the credibility such

schemes attain within government, farming and environmental organisations as well as amongst the general public (Morris 2004:177).

The Environmentally Sensitive Areas (ESA) programme was introduced in England following the Agricultural Act of 1986 and, although it was the first agri-environmental programme to be introduced within the European Union, similar schemes were subsequently introduced elsewhere in the UK and throughout other European Union member states (Hodge and Reader 2009:1). The scheme was voluntary with each ESA being a discrete, bounded area that was designated in accordance with its national conservation significance and the adoption, maintenance or extension of specific types of management practices deemed necessary in order to maintain its conservation character. Whilst the overall objectives were to maintain and enhance the landscape, wildlife and historical value of an area, through beneficial agricultural practices, specific objectives were also identified for each ESA (Morris 2006:118). The scheme covered a broad range of habitat and landscape types including wetlands, lowland heath, heather moorland, chalk downs and hay meadows (Hanley et al 1999:69). Unlike Ireland, where uptake had been negligible, the programme grew rapidly and a variety of agri-environmental schemes were subsequently created to support and complement the ESA scheme; the most prominent being the Countryside Stewardship Scheme (Dobbs & Pretty 2008:765).

Due to a long history of externally derived competition, agricultural intensification had become a necessity in order for larger farms to remain commercially viable. It was apparent that such intensification was impacting significantly upon areas outside those specially designated under existing agri-environmental schemes such as the ESAs and in order to address this problem the Countryside Stewardship Scheme (CSS) was piloted by the Countryside Commission in 1991. Established to help protect habitats and landscape types considered most at threat, the scheme aimed to sustain the beauty and diversity of the English landscape, improve and extend wildlife habitats and conserve archaeological sites and historical features. It also aimed to improve opportunities for recreation and leisure in the countryside, restore neglected land or features and create new wildlife habitats and landscape features by integrating conservation into everyday land management and farming practices (Morris 2006:118). Although the scheme operated throughout England, it targeted a

number of specific landscape types nationally with specific target areas identified within each county.

The Countryside Stewardship Scheme was the first national agri-environmental scheme in the UK that sought to 'buy environmental and public access 'goods' from farmers and other land managers on a targeted and discretionary basis' (Harrison-Mayfield et al 1998:157). Despite the voluntary nature of the scheme, this discretionary aspect meant that successful applicants were limited to those who were able to offer the greatest environmental and recreational benefits in return for their payments. Levels of participation were high and the scheme was often over-subscribed (Morris 2004:182). With various monitoring exercises undertaken, the scheme was subsequently judged a success and it was duly transferred to the control of DEFRA in 1996 (Morris 2006:118). Beginning with only 783 CSS agreements in 1991, the addition of more than one thousand agreements each year saw that figure rise to 8,614 by 1998 covering 143,055 hectares of English farmland (Dobbs & Pretty 2008:770). By 2003 over ten percent of England's agricultural land was collectively maintained through CSS and ESA agreements (Dobbs & Pretty 2008:773). However, research undertaken by Harrison-Mayfield et al (1998) has shown that, the impact of CSS was most apparent and positive among small scale, specialist farm businesses with a wide variation in the level of impact at a local level. The CSS was subsequently replaced by the Environmental Stewardship Scheme and whilst, currently, all three schemes run parallel to one another no new applications have been available to land owners or farmers in respect of ESAs or the CSS since 2005.

Rural development, which included environmental enhancement, officially became a major policy objective as a result of the Agenda 2000 reforms of the CAP. A comprehensive mid-term review of the CAP followed these reforms, in 2003, and it was agreed that payments to farmers would subsequently be decoupled from production. The Curry report, which resulted from the decisions of the Policy Commission on the Future of Farming and Food, supported a proposal for the introduction of a broad-based agri-environmental scheme within the UK. This was later adopted as part of the Government's Strategy for Sustainable Farming and Food (Dobbs & Pretty 2008:773) and the Environmental Stewardship Scheme was launched in 2005.

4.2 Environmental Stewardship Scheme

The Environmental Stewardship Scheme was the result of a two-year partnership between the Department for Environment, Food and Rural Affairs (DEFRA), English Heritage and other environmental agencies. It aimed to de-couple subsidies from production and hoped to attract more farmers than previous schemes. The scheme places certain limitations on farmers and, whilst these are centrally determined by the government, farmers do have considerable freedom in how they choose to operate their business (Dwyer & Hodge 1996:19).

The scheme is tiered and is intended to build upon the recognised success of the ESAs and the CSS. The three tiers comprise Entry Level Stewardship (ELS), Organic Entry Level Stewardship (OELS) and Higher Level Stewardship (HLS). Entry Level Stewardship provides a straightforward approach to the support of the good stewardship of the countryside and is open to all farmers and landowners farming in England. In contrast, Higher Level Stewardship provides for more complex types of land management where agreements may be tailored to local circumstances and where farmers may need additional advice or support. This higher level option provides greater reward in exchange for more significant environmental benefits in high priority situations and areas but access is restricted.

The primary objectives of the Environmental Stewardship Scheme are to conserve wildlife, maintain and enhance the quality and character of the landscape, protect the historic environment and natural resources and to promote public access and understanding of the countryside. In addition a concern for genetic conservation and flood management are secondary considerations (Rural Development Service 2005)

In order to participate in Entry Level Stewardship a farmer or landowner must earn a certain number of scheme points by agreeing to carry out certain environmental management options. These options are chosen from a wide ranging menu and if met or exceeded will guarantee entry to the scheme. Not all measures are, therefore, compulsory and farmers are able to choose the prescription that best suits their individual circumstances. Entry Level Stewardship plans run for five years and the management options are detailed in *table 4.1* below.

Table 4.1: Management Options for Entry Level Stewardship

Arable Land	Over-wintered stubbles and beetle banks
Buffer strips	2,4 or 6m buffer strips on cultivated land, rotational land and intensive grassland
Encouraging a range of crop types	Under sown spring cereal Wild bird seed mix/pollen and nectar seed mix in grassland areas
Less Favoured Area (LFA) land	Moorland and rough grazing Management of rush pastures
Lowland grass outside LFA	Taking field corners out of management Permanent grassland with low or very low inputs
Management plans	Soil and nutrient management plans Manure management plan Crop protection management plan
Protection of historic features	Taking archaeological sites out of arable production
Protection of soils	Management of high erosion risk cultivated land Management of maize crops to reduce soil erosion
Trees and woodland	Protection of in-field trees Management of woodland edges
Boundary features	Hedgerow and stone wall maintenance Ditch management

Rural Development Service 2005

In contrast, Higher Level Stewardship plans run for ten years and are additionally concerned with the preservation of the historic environment and increasing access to land. As well as standard scheme prescriptions relating to archaeological sites and monuments and traditional farm buildings, HLS provides for the restoration of traditional water meadows and the maintenance of high water levels in order to protect archaeological features. Standard scheme prescriptions require farmers to avoid ground disturbance on known archaeological sites or areas of historic interest under grassland. This includes poaching by livestock or allowing free-range pigs to run free on such sites. In areas where there are known archaeological sites or monuments, sub-soiling and de-stoning are prohibited. Farmers are also discouraged from ploughing more deeply or undertaking additional ground-works or drainage on areas that are already under cultivation but contain such features. The removal of useable building stone, walling or traditional roofing material is not permitted and farmers are not allowed to damage, demolish or remove building material from substantially

complete ruined traditional farm buildings or field boundaries (Natural England 2008). However, management options vary from ELS and these are shown in *table 4.2* below for comparison.

Table 4.2: Management Options for Higher Level Stewardship

Arable land	Flower-rich grass margins Fallow plots for ground-nesting birds such as lapwings Unharvested conservation headlands to provide winter food for birds
Grassland	Maintenance and restoration of species-rich, semi-natural grassland Restoration of wet grassland for breeding waders and wildfowl
Hedgerows	Maintenance of hedgerows of very high environmental value
Historic environment	Restoration of traditional water meadows Maintaining high water levels to protect archaeology
Inter-tidal and coastal	Maintenance of sand dune systems Restoration of coastal saltmarsh
Lowland heath	Restoration and maintenance of heathland
Moorland and upland rough grazing	Restoration of moorland
Orchards	Restoration of traditional orchards
Permissive access	Permissive footpaths and bridleways Upgrades of 'open access' land Educational access
Resource protection	Within-field grass areas to prevent erosion or run-off Seasonal livestock removal to prevent erosion or run-off
Wetland	Maintenance of pond of high wildlife value Maintenance of reedbeds
Woodland, tress and scrub	Restoration of woodland Retention of ancient trees in arable fields

Rural Development Service 2005

Although acceptance into HLS is restricted, Entry Level Stewardship seeks to extend the coverage of existing agri-environmental schemes across the majority of England's agricultural land. Such an approach has parallels within the United States where policy objectives have developed a wider concern with higher environmental standards across a broad spectrum of agricultural land from its previous focus on resource protection (Hodge and Reader 2009:2).

Government figures show that 54% of English farmland is already covered under the Environmental Stewardship Scheme but factoring in schemes that existed prior to Environmental Stewardship sees this figure rise to 65%. Contributions of £400 million per annum, almost double the size of contributions to previous schemes, are an indication of the Government's commitment towards the management of the countryside and the sustainability of farming. In order to help farmers to better target environmental benefits on their farmland, new stewardship options are being introduced and a new advice programme, in relation to ELS, is scheduled for later this year. In addition, to help farmers in seriously disadvantaged areas a new strand of ELS, Upland ELS, is planned for introduction in 2010 (DEFRA 2009:21).

Unlike Entry Level Stewardship, Higher Level Stewardship is competitive and judgements are made based upon environmental benefits per unit of expenditure (Dobbs & Pretty 2008:774). Previous schemes, such as ESAs and the CSS, provided only limited funding for the protection of heritage assets with just 20%, of the total of 147,000 farms in England, eligible to apply. It was hoped that greater incentives under the Environmental Stewardship Scheme would encourage many more to join (English Heritage 2008 www.english-heritage.org.uk). However, many (Dwyer & Hodge 1996; Harrison et al 1998; Burgess et al 2000; Morris 2006) remain critical about the effectiveness of operation of current agri-environmental schemes in England.

4.3 Strengths and weaknesses

Some authors (Harrison et al 1998:318; Morris 2006:114) believe that researchers have viewed agri-environmental schemes as 'running roughshod' over the local knowledge held by farmers and other land managers participating in the schemes. Their accusations relate to the fact that such schemes are underpinned by scientific knowledge. They argue that schemes not only encapsulate and emphasise codified knowledge, which is based upon the scientific principles of conservation, but also that prescribed management practices are supported by the principles of ecological and agricultural science.

Research has been undertaken by Burgess et al (2000) in respect of wet grazing marshland in the Pevensey Levels, on the southern coast of England. It suggests that, in order to optimise the outcome of agri-environmental schemes, a better dialogue or negotiation is required

between farmers and conservationists so that policy makers and those who implement such policies listen to, and incorporate, local knowledge brought to the scheme by farmers. However it is also argued that, in turn, farmers need to be more open to the science that underpins scheme prescriptions. In denying that farmers have a real knowledge of the same activities that conservationists seek to engage with and, in failing to recognise and address farmers' local knowledge, the mutual trust, upon which all partnerships need to be based, will be difficult to establish (Harrison et al 1998:318).

Morris (2006) disagrees and argues that a considerable degree of negotiation does, in fact, exist between farmers and Project Advisors. She believes that constructive inter-changes mean that the farmer's voice is at least being heard, respected and accommodated (Morris 2006:126). Current evidence would, indeed, appear to support this argument as both OELS and ELS are completely 'hands off' schemes allowing farmers a great deal of flexibility in their farming practices once they have achieved the required number of points for the size of their holding. Whilst HLS depends far more heavily upon advisors from Natural England, project officers do understand that farming is a business and that, in order to survive, some agreements may need to be tailored to suit a particular farming regime. The scheme is voluntary by nature and, therefore, if the farm environmental plan drawn up by the advisor is not acceptable to the farmer then they are unlikely to sign the agreement (interview Natural England March 2009). It is therefore in everyone's best interests that strong partnerships are built between Project Advisors and farmers and that the farmer's views are heard, respected and accommodated.

It is precisely the 'hands off' aspect of ELS that concerns Hodge and Reader (2009) who consequently describe this lower tier approach as 'broad and shallow'. The high degree of choice available to farmers under ELS, coupled with its voluntary approach, allows considerable opportunity for scheme participants to commit to options which would ordinarily have been undertaken anyway or where costs incurred are non-existent or can be kept to a minimum. These options may not represent those which would have been regarded as maximising environmental benefits or providing public goods (Hodge and Reader 2009:11).

In respect of the practical agricultural experience that Project Advisors possess, Morris (2006) argues that this is often lacking when compared to a farmer whose knowledge results from their direct and intimate experience of working the land (Morris 2006:120). She asserts

that the knowledge that farmers possess significantly differs from that possessed by policy makers, advisers and scientists (Morris 2006:117). However, in areas such as the south-west (*Plates 4.1 and 4.2*), many Project Advisors do actually have a great deal of practical farming experience because they have been farmers themselves or have come from families who have farmed for generations (Natural England March 2009). In addition, many Project Advisors were originally employed by the Rural Development Service or English Nature but now come under the auspices of Natural England. Whilst many of these Project Advisors do indeed have an environmental scientific background, their backgrounds can be very varied. Across the whole of England Project Advisors are able to demonstrate a vast amount of knowledge and experience of farming because of their ex-Rural Development Service status. Additionally, those previously employed by English Nature also possess a great deal of experience which has been built up over many years. The Advisor role has changed somewhat over time and no longer simply entails agri-environmental scheme delivery meaning that advisors are expected to have a broad range of knowledge and are not simply specialists in specific areas of environmental science (interview Natural England March 2009).

Plate 4.1: View from Halwell Hillfort, Devon

Plate 4.2: Bickleigh Farm, Devon, participating in the Countryside Stewardship Scheme

A further criticism of the scheme has been that a project advisor's activities are heavily prescribed by scheme procedures and practices. Natural England acknowledges that an accountability for spending public money means that the scheme has to operate within set rules. Despite this, they argue that a lack of flexibility is rare. They agree that some scheme prescriptions may not be entirely appropriate in certain circumstances where unique climatic conditions or local farming regimes are operable. However, they argue that this was more of a problem with older schemes such as ESAs and the CSS. A significant number of those involved in the development of the Environmental Stewardship Scheme, particularly in respect of the higher level tier, were aware of the difficulties with older schemes. As a result, they adopted much wider prescriptions which are alterable by advisors should the need arise. Additionally, Natural England operates a system involving 'indicators of success' which measures the success of a particular option. Advisors keep in close contact with farmers and those options which are unsuccessful can be subsequently amended ensuring the fluidity of a plan that is appropriate to individual circumstances (interview Natural England March 2009).

Despite assertions by Selman and Wragg (1999) that environmental management delivery through agri-environmental schemes is becoming 'normal custom and practice' (Selman & Wragg 1999:329), Morris (2004) argues that scheme implementation can be both complex

and contested (Morris 2004:189). Farmers in arable regions still benefit too much from production related CAP support to warrant adoption of the higher tiers of agri-environmental schemes and to diversify with crop rotations (Dobbs & Pretty 2004:226).

Whilst agri-environmental schemes remain the product of centralised bureaucratic policy making, there is evidence of a more recent policy rhetoric that reflects concern for a more participatory and 'bottom up' form of rural policy making with scope for farmers to collectively devise schemes based on local knowledge (Morris 2006:126). This, together with the broad spectrum of knowledge and experience possessed by many project advisors means that schemes have the best possible chance to achieve their aims and objectives. Despite this, at the end of an agreement farmers are not obliged to continue farming in accordance with their agreed plan and are free to revert to an alternative set of agricultural practices. With virtually no constraint upon the farmer's behaviour, except to maintain their land in Good Agricultural and Environmental Condition (GAEC), they have the potential to destroy all the accumulated benefit that has resulted from several years conformity (Hanley et al 1999:74).

4.4 Community Spirit

Authors (Juntti & Potter 2002:217; Morris 2004:178) highlight the fact that, in order to achieve the desired environmental outcomes of agri-environmental schemes, agreement holders do not act in isolation. Farmers and land holders liaise with a complex network of others including neighbouring farmers, family members, friends, and members of the public, agricultural advisors, contractors, employees, solicitors, regulators, retailers and volunteers. Each has a part to play in the success of that particular farmer and his agreed plan. Co-ordination across farms is evident particularly across areas of common land. On Dartmoor, it is vital for farmers to work together to manage the landscape appropriately in order to receive scheme payments. It is not unknown for farmers to adopt joint applications in order to operate at a landscape level and neighbouring farmers, who are already operating under agri-environmental schemes, will often target a non-participatory neighbouring farmer in order to persuade them to take up the scheme. Many neighbouring farms also have informal agreements in place (interview Natural England March 2009).

However, it would appear that, for a number of reasons, the Environmental Stewardship Scheme is not always attractive to potential new participants or those farmers and

landowners who are leaving existing agri-environmental schemes. In 1991 the Blackdown Hills was designated as an Area of Outstanding Natural Beauty (AONB). Its steep ridges, high plateaux, valleys and springs create a stunning mosaic of countryside that is dotted with farms, villages and ancient features (Blackdown Hills www.blackdown-hills.net). The area, which sits on the Devon and Somerset border, was subsequently designated as an Environmentally Sensitive Area (ESA) in 1994. Many landowners and farmers in the area participated in the ESA scheme securing appropriate land management measures for the conservation and enhancement of the landscape. When the ESA scheme closed to new applicants, and was replaced by the Environmental Stewardship Scheme, research showed that participation in the new scheme was very low within the Blackdown Hills area. As a consequence of this, the Blackdown Hills AONB Entry Level Stewardship Project was created to encourage farmers and landowners to join the scheme by providing help and assistance with the application process through one-to-one consultations. Applications were subsequently prepared and submitted on their behalf (Carver Knowles 2008:3).

The project was primarily targeted at farmers within the Blackdown Hills AONB who had previously been part of the ESA scheme as well as those whose land was strategically placed within certain geographical areas that would benefit from entry into an agri-environmental scheme. Whilst all ESA scheme leavers were mailed, alongside 400 non agri-environment scheme farmers, the project led to only 48 successful ELS applications (Carver Knowles 2008:8) suggesting that, in comparison to previous schemes, the Environmental Stewardship Scheme was less attractive and offered insufficient incentives to entice participation.

The ESA scheme and the CSS were both low delivery schemes that were initially introduced to protect valuable landscapes and required little change in farming regimes. As these low delivery schemes come to an end it is clear that those wishing to continue with low level delivery are unlikely to choose the Environmental Stewardship Scheme which, under HLS in particular, can involve a great deal of change in their farming regime. Indeed, because of the targeted nature of HLS, some may not even be eligible to join the scheme. However, Natural England are committed to bringing as many farmers into the new scheme as possible, partly because they simply do not wish to lose existing levels of public investment. They are, therefore, willing to avoid targeting the whole of the farm in order to protect those smaller areas which may be of significant value (interview Natural England March 2009) thus

demonstrating further the inherent flexibility of the scheme and a willingness to work closely alongside farmers to achieve a desired outcome for all parties concerned.

4.5 The curious case of the commons

Common land represents a valuable environmental, recreational and agricultural resource within England and its management is of increasing concern to many individuals and organisations. Used for agricultural purposes, common land is also used to extract resources such as peat, sand and gravel and is additionally used for sporting purposes. Its value is typically 'economic' and extends to the allocation of specific rights amongst commoners (Short 2000:123). Common land still forms a vital element within agriculture in the south west of England with grazing rights exercised mainly for sheep and the rearing of spring lambs. However, a decline in traditional customs associated with such use, for example regular shepherding, the driving or raking of sheep across the commons and co-ordinated clearance dates for sheep dipping are resulting in environmental degradation due to both over-grazing in specific locations and under-grazing in others (Short 2000:125).

Agri-environment schemes such as the CSS and ESAs, which aimed to address issues concerning landscape, archaeology, access and nature conservation, initially avoided the inclusion of areas of common land. Whilst the CSS related to areas outside of ESAs, it tended to focus upon enclosed pastures rather than open moorland. That which came within the scheme was subject to a national menu of management prescriptions. These tended to dominate the scheme leading to criticism by Morris and Young (1997) that it hindered the effective management of such sites because local customs were less likely to be incorporated into management plans. Although management prescriptions are specific to designated areas within ESAs and may, therefore, be developed to incorporate and maintain the local management practices that have shaped and maintained the landscape through previous generations, much common land was excluded from the scheme. This was due to the inflexibility of the scheme coupled with the complexities presented by common land with the involvement of large numbers of graziers and the range of landscape types and resulting traditional land management practices involved (Short 2000:128).

Short (1997, 1998, 1999, 2002) has written extensively concerning common land and believes that it is 'the last vestige of many historic landscapes' (Short 2000:124). In the south

west of England, Dartmoor (*Plates 4.3 and 4.4*) contains significant areas of common land which offer a rare opportunity to discover complete and integrated landscapes that reveal how people have lived, worked and died for over 6000 years. Dartmoor was awarded National Park status in 1951 and its diverse and unique landscape represents the largest expanse of open countryside in southern England with much of the moorland being common land (Dartmoor Vision Group 2008:1). With almost 24,000 hectares notified as Sites of Special Scientific Interest (SSSIs) a significant proportion of the area is also designated as a Special Area for Conservation (SAC); an international designation arising from the European Habitats Directive (Dartmoor Vision Group 2008:2). Despite its importance, little of the common land was encompassed within the ESA scheme. The area offers an abundance of prehistoric ritual and burial sites, field systems, settlements and medieval farmsteads. In addition, industrial sites relating to the Second World War and the historical mining of tin add to the international importance of the area (Dartmoor National Park Authority 2003:7). Over 6% of England's scheduled monuments are found on Dartmoor (Dartmoor Vision Group 2008:1).

Plate 4.3: Dartmoor common land

Plate 4.4: Dartmoor uplands

Initiated by the Dartmoor National Park Authority the Dartmoor Vision was introduced in 2006 and maps a vision of the moorland habitat looking forward to 2030. The vision map includes fourteen Premier Archaeological Landscapes where archaeological value takes priority but the overall vision is for a farmed landscape which relies predominantly on grazing traditions for the management of the landscape (Dartmoor Vision Group 2008:2). With a decline in farming income amongst Dartmoor hill farmers, some have looked towards diversification. Another Dartmoor initiative is the Hill Farm Project which works in partnership with the Duchy of Cornwall and a farmer focus group in an effort to increase the profitability of upland stock farming through diversification. Improved returns for local produce, with co-operation between farming and tourism, are key to its success (Dartmoor National Park Authority 2009a www.dartmoor-npa.gov.uk). However, not all farmers are able to take advantage of such opportunities and these alternative incomes are only available to around 20% of the farmers. Those enterprises which are increasingly successful mean that a farmer can derive more income from alternative enterprises. This reduces the need to continue farming on the moorland thus speeding up the loss of farming in the area (Dartmoor Vision Group 2008:3). Agri-environmental payments are critical to those farmers who wish to continue to farm the moorland but according to the SW Uplands Federation 'Environmental

Stewardship's Entry Level Scheme' has found few friends on the hills' (SW Uplands Federation 2008:1). It is hoped that, as earlier agreements come to an end and with Dartmoor now a core target area, the majority of the moorland will be eligible for Higher Level Stewardship. However, by October 2008, only five of the 92 areas of common land were in fact covered under HLS agreements (SW Uplands Federation 2008:2). There are concerns that with ever-increasing costs these agreements will offer insufficient returns to farmers (Dartmoor Vision Group 2008:3). The investment of time and money sufficient to govern and manage common land has been, for many owners and commoners, prohibitive in comparison to potential returns (Short 2000:125).

4.6 Archaeology

Natural England has a cohort of Historic Environment Specialists, many of whom are ex-Rural Development Service employees. There is roughly one expert per region but since Project Advisors, generally, have no formal historical background they are fully reliant upon these specialists for advice and training. In the south-west region there is only one historic Environment Specialist available to provide training for Project Advisors in Dorset, Devon, Cornwall, Somerset and the Isles of Scilly and any training is undertaken solely on a voluntary basis. However, ex-RDS Project Advisors would have received a reasonable amount of historic environment training in the past (interview Natural England March 2009).

ELS is very much a 'hands off' scheme and so there is little opportunity for advice during initial contact. Help and advice is available on-line and some regions include English Heritage pamphlets in their ELS application pack. This does not occur in all regions and, particularly in the south-west where the level of expression of interest is extremely high, this practice has not been adopted as it has not been viewed as cost effective (interview Natural England March 2009). It is therefore left to individual farmers or landowners to seek information themselves concerning the management and conservation of the historic environment and any archaeological sites and monuments which may be present on their land. Given that it was necessary to employ outside consultants in the Blackdown Hills AONB project to complete the application forms and registration procedures on behalf of potential Environmental Stewardship Scheme participants, it seems unlikely that farmers would be willing to make the effort to obtain information that is additional to that provided to them by Project Advisors.

In contrast, HLS is a highly targeted scheme and a detailed *Environmental Information Map* is provided to all farmers within their application pack. This map shows any features of particular historic, landscape or wildlife interest that are known to be situated within the land area of their farm. In addition, Natural England has outlined the key characteristics of broad areas of the English countryside that have a cohesive and distinctive landscape character. Each farm will be covered by one or more of these *Joint Character Areas*. In order to assist farmers and landowners, priorities for the management of key features as well as future management issues have already been identified in each of the *Joint Character Area*s. It is left to individual Advisors to contact their particular regions Historic Environment Specialist at any stage during either the application or agreement process and, therefore, regional specialist are not involved in every application (interview Natural England March 2009). Whilst not all farmers will do so, scheme participants are required to alert Natural England to any features which may not already be marked upon the maps provided by Natural England so that these sites and monuments may be retained and protected. Currently, it is not possible to measure how successful this process has been for, although Natural England is committed to updating the Historic Environment Record, this has not been a priority activity (interview Natural England March 2009).

In the south-west of England most farmers taking up ELS tend to accumulate sufficient points through choosing the boundary option simply because this involves the least amount of change in their farming regime. The archaeology under grassland option has also been relatively successful as this option, similarly, can involve few changes to farming practices. However, because little change is required, payments for these options are relatively low. Arable reversion, in contrast, pays significantly more and has been well received amongst those farmers wishing to change their farming regime or wanting to change their arable production to an alternative field. Other options, in relation to archaeological sites and monuments, have been less well received (interview Natural England March 2009).

In the east of England, by contrast, grassland is of little value because farmers don't tend to have livestock. It has proved difficult for Natural England to persuade farmers with monuments in arable land to take on such a profound change in their farming regime. The scheme remains voluntary and, additionally, in many cases any sites or monuments may already have been destroyed as a result of ploughing. Natural England therefore deem it

necessary, on occasion, to consider the overall benefit to the environment before suggesting farmers adopt such a significant change in their farming regime and Advisors will call upon the necessary expertise as appropriate (interview Natural England March 2009).

Whilst a farmer can earn 460 points per hectare opting to take archaeological features out of cultivation, 56 points per 100m may be earned for combined hedge and ditch management (Natural England 2008:28). Given the choice, it seems more likely that a farmer would choose to maintain 900m of ditches and hedgerows for an equivalent number of points. He could then keep the same amount of land for cultivation as before and not upset his farming regime by decreasing his area of cultivated land in order to simply protect an archaeological feature which has not previously been protected. There are further options which may also appear more favourable to the farmer than taking archaeological features out of cultivation and would similarly earn a higher number of points. Such options include creating beetle banks which provide a habitat for ground nesting birds, small mammals and insects. This option still allows a field to be farmed and yet provides the farmer with 580 points per hectare (Natural England 2008:61). Choosing the wild bird seed mixture option, which provides important food resources for farmland birds, or opting to sow an area of flowering plants in order to boost the availability of essential food sources for a range of nectar feeding insects, under the nectar flower mixture option, both earn a similar number of points at 450 points per hectare and yet, unlike the archaeology option, allow the farmer the continued use of the area with little change to his farming regime (Natural England 2008:57).

4.7 Scheme distribution

In examining the percentage take up of agri-environmental schemes across England against the actual number of farms in any one county, it is apparent that the number of farmers choosing to adopt such schemes varies greatly from county to county. In order to assess the number of farmers and land owners choosing to adopt agri-environmental schemes it was necessary to look not only at those participating in the Environmental Stewardship Scheme but also at those registered under the Countryside Stewardship Scheme or farming Environmentally Sensitive Areas since these schemes currently continue to operate alongside one another. Farmers cannot choose to participate in more than one scheme at any one time. The results have been divided into four quartiles to show the number of farms under agri-environmental schemes as a percentage of the total number of farms in any one county.

Those counties where the percentage was below 25% were considered at greatest risk with those over 75% at least risk.

As *figure 4.1* demonstrates fifty percent of all English counties fall into the high risk quartile with no counties considered to be at least risk. Percentage take up of agri-environmental schemes was greatest in Northumberland where 57.44% of all farmers or landowners are actively involved in such schemes. With the exception of Northumberland and Cumbria, percentage participation remains below forty percent in every other county. *Figure 4.2* demonstrates that, with the exception of Cornwall in the south-west, the counties at highest risk from limited participation in such schemes form two distinct pockets of concern in the north-west and south-east of the country respectively.

In terms of the management and conservation of the historic environment, these results become of greatest concern when those counties which are most at risk, due to limited participation under agri-environmental schemes, also contain a large percentage of England's archaeological sites and monuments. This will be investigated further in a later chapter.

4.8 Conclusions

It is clear that the rapid expansion of English agri-environmental policy, from its modest beginnings, as a small scale pilot scheme on the Norfolk Broads, to a distinct public policy field is closely related to wider reform within the EU's CAP (Morris & Potter 1995:53). Indeed, it can be argued that, agri-environmental policy has probably developed more extensively within the UK than elsewhere with agri-environmental schemes occupying an increasingly important place within UK agricultural policy as a whole (Hanley et al 1999:67). Unlike its Irish counterpart, the Environmental Stewardship Scheme is expanding with recent Natural England job advertisements seeking to recruit 70 Conservation and Planning Advisors across the country (Natural England 2009a www.itneedsyou.co.uk) and a restructure calling for additional Team Leaders nationally (Natural England 2009b www.naturalengland.org.uk).

The agricultural industry, in England, has faced some difficult times recently with flooding, disease, global price volatility and now the recession all adding to the challenges of farming (DEFRA 2009:4). Additionally, there is evidence of decreasing numbers of small and medium sized farms (Potter & Lobley 1993:269). The Environmental Stewardship Scheme offers 'good prospects for further enhancing agriculture's multifunctionality' in a co-ordinated way that

builds on the experiences gained through previous agri-environmental schemes (Dobbs & Pretty 2008:774) and may offer an opportunity for those wishing to diversify their business away from more traditional routes.

It is clear that the Environmental Stewardship Scheme offers a degree of flexibility to farmers wishing to adopt a more environmentally friendly form of farming and that a certain amount of discourse is beginning to develop between Project Advisors and farmers that will help to bridge the perceived gap between knowledge versus science. However, whilst the Environmental Stewardship Scheme remains menu-driven, it cannot ensure that a standard basic minimum of environmentally friendly behaviour is achieved across all participating farms (Emerson & Gillmor 1999:240) and the current points system means that incentives, for the management and conservation of the built heritage, will remain insufficient to encourage farmers and landowners to change their farming regimes.

Agri-environmental schemes certainly have the potential to benefit heritage because they integrate archaeological site management alongside other environmental interests across the farm. Although they have proved generally effective in enrolling many farmers at the entry level tier, they have failed to offer incentives sufficient to attract farmers, involved in more intensive agricultural activities, to the higher level tiers (Dobbs & Pretty 2008:765) due to the fact that available payments have not been as attractive as those offered for continued intensified production (Trow 2004:37). This situation is directly comparable with the Rural Environmental Protection Scheme in Ireland, which has proved relatively successful in recruiting smaller farmers but has failed to attract the larger, more intensive, farmers given payment restrictions based upon farm size and the fact that improvements required to the farm under the scheme would not be cost effective.

Whilst the Environmental Stewardship Scheme encourages farmers to become stewards of the countryside such stewardship is viewed as an addition to, rather than embedded in, agricultural production processes and has, therefore, led to a continuation of agri-environmental policies which are 'bolted onto', rather than integral with, productivist policy measures (Bowler 2003:45). Additionally, it would appear that the management and conservation of archaeological sites and monuments is similarly viewed as simply being additional to measures aimed at protecting and enhancing the natural environment (interview Devon County Council April 2009).

County	Total Number of Farms	Total Number of Farms Under ESS ,CSS & ESAs	Farms Under agri-environment schemes as a % Total Number of Farms
Northumberland	3067	1761	57.42%
Cumbria	8617	3572	41.45%
Norfolk	6889	2636	38.26%
Suffolk	5128	1866	36.39%
Oxfordshire	3025	1071	35.40%
Shropshire	7368	2407	32.67%
Northamptonshire	3173	1012	31.89%
Somerset	9405	2934	31.20%
Durham	3588	1091	30.41%
Cambridgeshire	3535	1069	30.24%
Devon	16861	5062	30.02%
Wiltshire	4536	1330	29.32%
Yorkshire	22458	6401	28.50%
Leicestershire	4058	1129	27.82%
Nottinghamshire	2712	745	27.47%
Gloucestershire	5275	1410	26.73%
Dorset	4517	1183	26.19%
Bedfordshire	1509	381	25.25%
Lincolnshire	8086	2040	25.23%
Tyne & Wear	317	77	24.29%
Buckinghamshire	2712	656	24.19%
Essex	4462	1073	24.05%
Cornwall	9492	2246	23.66%
Warwickshire	3730	868	23.27%
Staffordshire	6706	1540	22.96%
Hertfordshire	1651	369	22.35%
Herefordshire (Her & Wor)	9415	2102	22.33%
Isle of Wight	743	164	22.07%
Berkshire	1207	259	21.46%
Sussex	6534	1349	20.65%
Avon	3222	651	20.20%
Cheshire	8275	1670	20.18%
Hampshire	4880	903	18.50%
Derbyshire	5602	1012	18.06%
Lancashire	7192	1240	17.24%
Kent	6024	1032	17.13%
Middlesex	564	81	14.36%
Surrey	2409	293	12.16%
Totals	208944	56685	

Figure 4.1

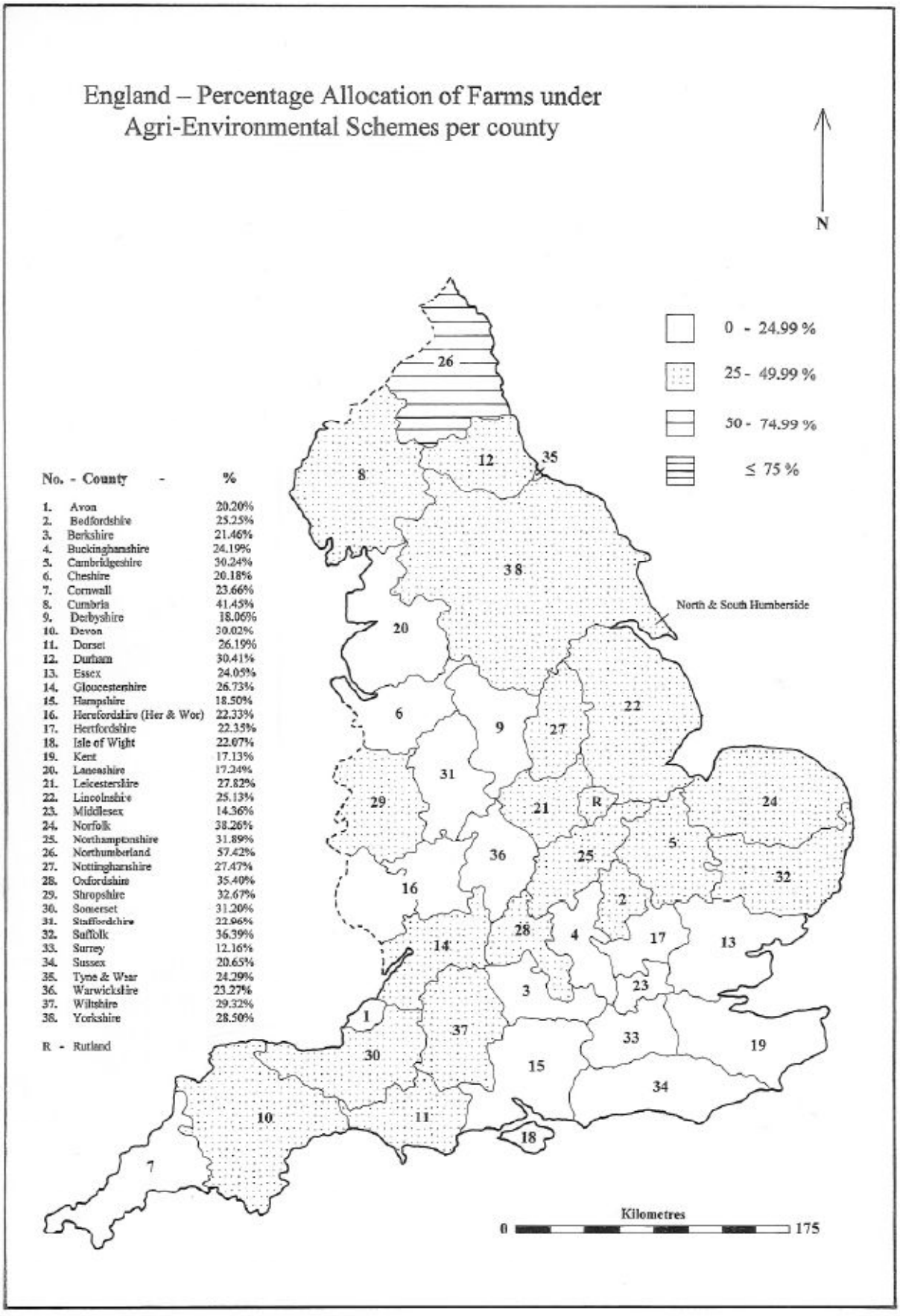
England – Percentage Allocation of Farms under Agri-Environmental Schemes per county
N
0 - 24.99 %
25 - 49.99 %
50 - 74.99 %
≤ 75 %
No. - County - %
1. Avon 20.20%
2. Bedfordshire 25.25%
3. Berkshire 21.46%
4. Buckinghamshire 24.19%
5. Cambridgeshire 30.24%
6. Cheshire 20.18%
7. Cornwall 23.66%
8. Cumbria 41.45%
9. Derbyshire 18.06%
10. Devon 30.02%
11. Dorset 26.19%
12. Durham 30.41%
13. Essex 24.05%
14. Gloucestershire 26.73%
15. Hampshire 18.50%
16. Herefordshire (Her & Wor) 22.33%
17. Hertfordshire 22.35%
18. Isle of Wight 22.07%
19. Kent 17.13%
20. Lancashire 17.24%
21. Leicestershire 27.82%
22. Lincolnshire 25.13%
23. Middlesex 14.36%
24. Norfolk 38.26%
25. Northamptonshire 31.89%
26. Northumberland 57.42%
27. Nottinghamshire 27.47%
28. Oxfordshire 35.40%
29. Shropshire 32.67%
30. Somerset 31.20%
31. Staffordshire 22.96%
32. Suffolk 36.39%
33. Surrey 12.16%
34. Sussex 20.65%
35. Tyne & Wear 24.29%
36. Warwickshire 23.27%
37. Wiltshire 29.32%
38. Yorkshire 28.50%
R - Rutland
North & South Humberside
Kilometres
0
175

Figure 4.2

THE RURAL ENVIRONMENTAL PROTECTION SCHEME

'Ireland is the most temperate of all countries; there is green grass for the cattle in summer and winter, and there is no need for cutting hay, no need for stalls'

Giraldus Cambrensis (c1146-1220) in Galcken 1967:280

5.1 The story so far

The greenness of the Irish countryside is attributable to the country's vast extent of agricultural grassland cover and its temperate climate. The forced enclosure of millions of hectares of common land during the late eighteenth and early nineteenth centuries resulted in the establishment of earthen banks, stone walls and hedgerows that have created the 'patch-work quilt' appearance of the Irish rural landscape (Cullerton et al 1994:36) (*Plates 5.1 and 5.2*). Ireland has an agricultural area of 4.4 million hectares of which 80% is devoted to silage, hay and pasture. Beef and milk production account for over half of the country's agricultural output although there are clear differences in the distribution of these enterprises. There are also clear regional differences in the degree of intensification in farming particularly between the west and northwest of the country as compared with other regions (Shucksmith et al 2005:114).

As McDonough (1998) asserts, 'few places in Europe are so automatically thought of as 'rural' as the island of Ireland' and for a good period of time, up to and including the 1990s, the terms *rural* and *agricultural* were used interchangeably in the majority of literature references. This tended to reinforce a somewhat one-dimensional approach to rural development (McDonough 1998:48). However, in recent times, there has been a significant shift away from viewing rural development as simply an adjunct of agricultural policy so that it is now viewed as a political concern in its own right, emphasising the more holistic and integrated approach to rural development in Ireland today (McDonough 1998:49).

In recent decades, there have been major advancements in farm management standards in Ireland thanks to the development of applied research and the work of the farm advisory services as well as through formal education and mass media influence (Aalen 1993:159).

Plate 5.1 Patchwork fields in county Mayo, Ireland

Plate 5.2 Patchwork fields in county Clare, Ireland

However, Ireland is relatively fortunate in that, there are still significant bastions of the traditional farmed landscape that continue to survive. In many of these areas geographical and climatic constraints have limited the relevance of new technologies and the farmer has had little choice but to continue with the relatively 'traditional' management systems which have defined, and worked in harmony with, the countryside for generations (Dunford 2007:19). Many rare and valuable habitats, such as the Burren in county Clare, have evolved through many centuries of traditional farming practices and now actively require agricultural management in order for them to survive (Rural Resource Development Ltd 2008:9). Yet, even the Burren has suffered as a result of CAP initiatives and, in an attempt to raise farm income and modernise agricultural in such peripheral areas, a programme of land reclamation was initiated, over a ten year period, from 1981 onwards (Drew & Magee 1994:81). Wall systems and other field monuments were obliterated over an area 550 hectares in size and the loss of so many field boundaries and monuments, as well as fields names, has impacted significantly upon the cultural heritage (Drew & Magee 1994:91).

National Parks, Nature Reserves and other protected areas are especially important for the conservation of Ireland's landscape and are highly valued. However, the land area covered is minimal in comparison to the large areas of privately owned farmland which often appears to be undervalued in respect of its habitat potential (Rural Resource Development Ltd 2008:9). National Parks in Ireland are unusual in that they are state owned and farmed under management agreements. This is in stark contrast to the position in England where 74% of National Park land is privately owned (MacEwan & MacEwan 1987:105). As the CAP develops its environmental dimension and sets standards for the production of quality foods, the greenness of Ireland's countryside and its image as a source of pure and healthy food is a potentially huge asset in terms of its export market and thus gives Ireland a comparative advantage over other European states (Gillmor 1999:57).

More than any other European member state, in the Republic of Ireland there is an almost universal owner-occupation of land and many farmers have formed a tight bond with the specific tracts of land that they own and are, therefore, reluctant to sell their land or to leave their farms (Gillmor 1999a:78). Grimes (1988) records that 92% of farmed land in Ireland is owned by the family with the transfer of land restricted almost totally within the kinship network. This figure is much greater than the percentage of land ownership within the

European Union which averages 63%. Within rural Ireland this attachment to the family farm has always been regarded as a dominant passion (Grimes 1988:33) that involves more than simple access to the available resources needed for a viable economic base and Buttimer (1998) argues that it has important implications 'for the sustainability of kin and cultural traditions as well as for the re-discovery or maintenance of environmentally appropriate practices' (Buttimer 1998:12). Crowley believes that, this strong attachment, together with an even stronger political attachment to the principle of private ownership resulting from the collective memory of fighting for land ownership, is a potent force in Ireland. The average farmer in Ireland still regards the private control he holds over his own land as sacrosanct making it difficult to accept the authority of an external force, such as the EU (Crowley 2006:135).

5.2 Policy

Since the early 1970s, Agricultural policy in Ireland has been incorporated into, or alternatively derived from, the Common Agricultural Policy of the European Union (Walsh 2007:160). There can be little doubt that Ireland has reaped the social and economic benefits that resulted from agricultural modernisation and intensification, favoured at the time by the CAP although, the environmental impact that these have left in their wake has been devastating. The use of pesticides and artificial fertilisers, together with excesses of animal slurry and silage effluent, have taken their toll on the environment resulting in pollution, eutrophication of lakes and rivers and contamination of ground water. Higher livestock numbers have led to increased emissions of methane, a gas strongly linked to global warming and climate change, and scatters of new farm buildings have visually intruded upon the landscape. The reclamation and drainage of land has resulted in the loss of many wildlife habitats and the erosion of many sites of historical and scientific interest (Shucksmith et al 2005:92).

Agri-environmental schemes have become an important component within the Common Agricultural Policy and, after more than 50 years of EU agricultural policies designed to support farm income through farm commodity prices, there has been a significant shift in concentration with policies focussing on payments that are now area-based and relate to the supply of environmental goods (Campbell et al 2006:2).

In June 2003, the Luxembourg Agreement made provision for the decoupling of all direct payments from production. Prior to decoupling a large number of farmers were operating their farm businesses at a market loss. However, the system now offers these farmers the opportunity to increase farm profitability by ceasing their production completely, whilst still receiving payments, provided they maintain their land in accordance with European guidelines. Alternatively, they may diversify into a farm enterprise that can be pursued at a profit (Hennessy et al 2008:37). This was considered to be very radical, in terms of policy reform in Ireland, because of the high dependency that Irish farmers have previously placed on direct payments. A farmer's decoupled payment is paid as a Single Farm Payment (SFP) which is based upon the number of direct payments claimed in an historic reference period in respect of an equivalent farmed area (Hennessy et al 2008:32). Under the current SFP Scheme, all farmers are required to meet various Statutory Management Requirements (SMRs) that are demanded under EU legislation and to maintain their land in Good Agricultural and Environmental Condition (GAEC). This is known as cross compliance and its introduction has raised the bar in respect of agri-environmental scheme requirements, particularly in respect of the Rural Environmental Protection Scheme (Rural Resource Development Ltd 2008:40).

Little agri-environmental support existed in the Republic prior to 1992 but the introduction of the Rural Environmental Protection Scheme (REPS) in 1994 attempted to address this. In terms of agri-environmental schemes offered in other member states, Ireland's REPS has been more broadly based as any farmer, in any part of the country, has been eligible to apply to join the scheme (Gillmor 1999:58). Available universally, on a voluntary basis, REPS was not restricted to specific areas within the country and comprised of eleven basic measures which were further supported by six supplementary measures.

Prior to CAP reforms, direct payments accounted for only 30% of average family farm income but, by 1996, this figure had risen to 60% and, by 2002, accounted for 90%. However, REPS has been less about paying farmers to simply achieve basic levels of good farming practice and more about farmers going the extra mile to provide public goods in the form of environmental services. It was intended to provide compensation for the additional costs incurred by farming in such a way.

REPS not only benefited farmers financially but also offered a range of benefits to society, as a whole, through the enhancement of the rural landscape and the provision of recreational amenities, improved water quality, the preservation of wildlife and the maintenance of historical and archaeological features (Campbell et al 2006:3). Mary Coughlan, then Minister for Agriculture and Food, supported this believing that 'while payments are made directly to farmers, the benefits are for society as a whole' (Department of Agriculture, Fisheries and Food 2007 www.agriculture.gov.ie).

5.3 REPS 4

The Rural Environmental Protection Scheme was introduced in 1994 and has been revised a number of times, with each subsequent scheme increasingly emphasising pro-active measures through which farmers have protected and improved the environment. Given the difficult income position that exists in agriculture today, together with the recent environmental obligations imposed under the Nitrates Directive, the opportunity to introduce an effective agri-environmental scheme, has never been more appropriate (Gunning 2006 www.farmersjournal.ie).

REPS 4 was the first phase of REPS introduced since the CAP reforms of 2005 and much of the work required under the recent Nitrates Directive went a long way towards meeting the requirements for REPS 4 with many farmers only required to make minor adjustments (Gunning 2006 www.farmersjournal.ie). It is the larger and more intensive farms that have the most impact upon the environment and, yet, traditionally it has been these same farmers who have been least likely to join the scheme given payment restrictions based upon farm size and the fact that necessary improvements to the farm would not be cost effective. Such farmers, which include dairy farmers, have previously opted out of the scheme (Hynes et al 2008:6). However, a newly introduced provision under REPS 4 allowed farmers, who qualified for a derogation under the Nitrates Directive, to be subject to a less stringent regime in respect of their use of chemical nitrogen and it was hoped that this new measure would attract larger, more intensive, farming systems into REPS. This was potentially very promising for the environment as larger farmers have always been accused of inflicting far more environmental damage than smaller farmers. Encouraging their participation meant that REPS would encompass far more of the Irish rural landscape.

The number of farmers joining REPS, since its introduction, has always been somewhat disappointing. Indeed, the initial target of just 45,000 members was not met and by October 2003 only 37,000 farmers had joined the scheme representing a mere 29% of the country's total number of farmers (Shucksmith et al 2005:93). With €3 billion invested in REPS 4, from European Union and Irish Tax Payer co-funding, average farm payments were set to increase to €7220, comparable to only €4900 under REPS 1 and REPS 2 and €6170 under REPS 3. When REPS 3 closed to new entrants in December 2006 there were over 59,000 farmers taking part and it was hoped that this number would increase to 70,000 by 2013 under REPS 4 (Department of Agriculture, Fisheries and Food 2007 www.agriculture.gov.ie).

REPS 4 requires farmers to participate in eleven basic measures which have changed little from when the scheme was first introduced in 1994. The measures require farmers to devise a nutrient management plan in order to protect water quality and avoid agricultural pollution. Watercourses, other water bodies and wells must also be protected and maintained in order to enhance water quality and to allow natural streamside vegetation to develop. This is to be achieved by restricting the use of artificial pesticides and fertilisers particularly near field boundaries, streams and wells. This measure will also protect habitats which are also protected under the scheme by ensuring that farming practices are carried out in a manner that is beneficial to both flora and fauna.

A Grassland and Soil Management Plan promotes sustainable agriculture by minimising poaching, overgrazing and soil erosion whilst simultaneously benefiting wildlife habitats. Whilst the maintenance of farm and field boundaries such as fences, stone walls and hedgerows is beneficial for stock control, animal health and wildlife it also ensures the scenic appearance of the area. This is further enhanced with a requirement to maintain and improve the visual appearance of the farm and farmyard so that it sits in harmony with the surrounding countryside.

In terms of tillage crop production measures encourage practices and production methods that reflect an increasing concern for landscape conservation, the protection of the soil and related environmental issues. It is hoped that the establishment of biodiversity buffer strips around features of historical and archaeological interest will contribute to the conservation of these sites. A further measure of the scheme is the requirement for farmers to maintain farm and environmental records detailing management information and work done throughout

each year of their five year REPS plan. In providing the necessary knowledge and skills to follow their REPS plan successfully the training measure also ensures that all REPS farmers have sufficient information on the environmental benefits arising from the scheme and are aware of all the relevant requirements included in the agri-environmental specifications.

Farmers must, in addition, choose two further undertakings that relate to biodiversity and are also able to opt for additional payments through supplementary measures. Option 7A, for example, allows for increased buffer margins around archaeological and historical features in order to increase the protection of such features and to further enhance biodiversity. Supplementary measure 12, *Traditional Farm Buildings*, is intended to ensure that a number of traditional farm buildings, which contribute to the visual landscape, and are of historical and architectural value, will be maintained into the future. This measure is operated by the Heritage Council on behalf of the Department of Agriculture, Food and Fisheries (DAFF 2008).

The REPS is a voluntary scheme that has been open, nationally, to all landowners who farm in excess of 3ha. Prior to joining REPS, farmers were required to employ an approved REPS planner to produce a farm development plan, in accordance with a series of statutory measures, which the farmer agreed to implement in order to achieve the objectives of the scheme. The planner is responsible for advising a farmer on all matters relating to the scheme including fertiliser use, animal housing, feed and waste storage facilities and offers help deciding which REPS options and supplementary measures best suit the farmer. REPS planners are also responsible for advising the farmer of their obligations under both Irish and EU law and must provide information relating to approved, compulsory, training courses which focus on specific issues including Ireland's cultural and heritage landscape. It is mandatory for farmers to attend these approved training courses within two years of joining the scheme (MAFF 2007).

5.4 Strengths and weaknesses

Emerson & Gillmor praise the universal approach offered by REPS because it raises the potential number of participants within the scheme and 'avoids the danger of creating islands of diversity and valued environment within a sea of second rate countryside' (Emerson & Gillmor 1999:240). However, as Dúchas argues, there are a range of habitats and sites which would benefit significantly from positive heritage management, or restoration by

landowners, but are unlikely to do so because, in its current format, REPS is unlikely to be an option for almost two-thirds of Ireland's farmers. This means that a large portion of Ireland's countryside will be left without any agri-environmental incentives (Heritage Council 2008 www.heritagecouncil.ie) which will inevitably create the countryside patchwork that Emerson and Gillmor think it so important to avoid.

Winter, in studying the effects of the 1992 CAP reforms, is able to demonstrate that policy is only one of several highly significant influences on both a farmer's behaviour and the environmental outcome of that behaviour. His research showed that, whilst price support policies have been a dominant force for the past forty years and have undoubtedly had, and continue to have, an important influence on agricultural management, the fact that the same set of policy instruments can produce radically different responses, on a number of farms, is a clear indication of the weakness of that policy (Winter 2000:56). The outcome of Winter's work is supported by the results of the 2004 National Farm Survey, undertaken by Teagasc, which indicated a number of reasons why farmers had decided against joining REPS. Many, especially the more intensive farmers, though that it was too restrictive on their farming practices whilst others were concerned over the volume of paperwork involved and investment costs relating to animal housing and waste storage. In other cases farmers disliked on-the-spot inspections and felt that standard inspections were too frequent (Teagasc 2004). This is certainly supported by the views of one REPS planner based in county Waterford who advises that one of the biggest stumbling blocks to joining REPS has been the expense of additional items such as planting trees, creating a habitat or fencing of watercourses alongside pollution control measures (National Rural Network 2009 www.nrn.ie).

Under REPS plans, farmers are accountable to the state for the practices that they adopt on their farm and their social role is more tightly circumscribed, controlled and monitored than it might otherwise be (Crowley 2006:120). For this reason, many farmers choose not to subscribe. Even organic farmers regard REPS as overly intrusive. Donal farms organically on a small holding in County Cork and has been the main supplier of organic fruit and vegetables to Denis Cotter's top vegetarian restaurant *Café Paradiso*, in Cork city centre, for several years. He has chosen not to participate in REPS so that he can continue to farm according to his own principles without interference (Interview November 2007).

REPS plans relate to the whole farm business and, therefore, the 11 basic measures apply to all that land which is farmed and included in the agri-environmental farm plan. Before payments are made under the scheme, administrative checks are made. These pre-payment checks and on-farm inspections occur on a proportion of all payment claims and are carried out at farm level to ensure compliance (MAFF 2007). As an example of the severity of measures put in place for non-compliance, the penalty for farmers failing to adhere to Measure 7 of REPS, in respect of the conservation and management practices pertaining to archaeological monuments and features included in their farm plan, ranges between 25%-50% of their due payment (MAFF 2007).

In line with trends across Europe, there is a tendency towards fewer farms, less farm employment and larger farm units in Ireland, as well as the specialisation and concentration of farm production (Ní Laoire 2002:16). The National Farm Survey showed that, for many farmers, part-time farming has meant that there is less time to devote to farming and especially to REPS work (Teagasc 2004). There has been a growing trend in the number of part-time farmers in Ireland indeed, such non-farm diversification is encouraged under the government's rural development plans and highlighted as a viable means of sustaining smaller farms. In addition to this, it is also likely that decoupling, in reducing the relative profitability of farm work, is likely to increase the probability of off-farm employment (Hennessy & Rehman 2007:61). Government policy therefore seems to conflict and the diversification, advocated through rural development policy, may seriously impact upon the success of agri-environmental policy. Agri-environmental schemes are concerned with the stewardship of the countryside and rely upon farmers to carefully manage their land in an environmentally friendly way. This requires time and, as part-time farming increases, there will be less opportunity for farmers to carry out the measures prescribed within their plans. In encouraging this set of conflicting demands upon the farming community the government is jeopardising the future of the countryside it seeks to preserve. Yet this is not unique to Ireland and, across Europe, farmers receive an overwhelming flow of policy directives that arrive in 'sectorally-specialised packages' which often bear contradictory messages on environmental issues (Buttimer 1998:4).

Feehan (2003) is critical of REPS because it is imposed from above and is dependent upon outside experts and paid advisors meaning that farmers experience little sense of ownership

and cannot easily identify with its aims (Feehan 2003:508). He believes that, many farmers gratefully embrace REPS because it acts as a lifeline and that, prescribed activities are undertaken, in many cases, only to avoid possible forfeiture of the payment for non-compliance within the agreed plan. This is supported by evidence from Ní Laoire (2002) which suggests that most farmers generally resist joining the scheme or take part in it grudgingly (Ní Laoire 2002:24). Feehan further argues that, the values which underpin the scheme are viewed as belonging to those who do not live or work in the countryside but who, in one way or another, hold the purse strings and wield influence (Feehan 2003:524). In tandem with Crowley's views concerning land ownership and the resulting inherent inability of Irish farmers to accept authority from an external force such as the EU (Crowley 2006:135), it is difficult to see how REPS can be fully successful in its aims. Local authorities, local non-farming residents and rural interest groups are not officially involved in REPS, although, as Aalen argues, their participation would introduce a much needed bottom-up element to the scheme (Aalen 1997:259) which may help to broaden support for the scheme amongst a wider audience.

Crowley strongly objects to the fact that conservation strategies used both in Ireland and throughout Europe view farmers as inconvenient inhabitants and exploiters of the land (Crowley 2006:141). She argues that REPS has wholeheartedly been embraced by the dominant parties in Irish agriculture because it does not prevent the larger farmers from becoming larger and further intensifying their production (Crowley 2006:206). Certainly this is the view held by a number of farmers in Slieveardagh, in north-east Tipperary, where the general feeling is that advice is orientated mainly towards the agrarian entrepreneurs rather than the small famer (Buttimer 1998:27). The area encompasses features of the relatively affluent eastern and southern regions as well as those of the less developed western parts of the country and therefore represents an ideal microcosm of Irish agrarian life (Buttimer 1998:7). As Buttimer (1998) argues, the commercial success achieved by Irish beef and dairy sectors can be ascribed to the efforts of organisations such as the Irish Farmers Association and the Irish Creamery Milk Suppliers Association. Originally developed as voices for 'bottom-up' interests she asserts that they are now in a position where they can assume a 'top-down' role on matters which impact on areas such as Slieveardagh (Buttimer 1998:21).

As far as smaller farmers are concerned, Crowley agrees with Feehan, believing that REPS is solely a means of distributing a form of welfare that will supplement the small farmer's inadequate income that is available from farming alone. Crowley argues that the majority of smaller farmers have now been allocated the role of producing environmental goods within a multi-functional rural arena and as such REPS has merely reduced such farmers to 'managers of a manicured landscape for the consumption of urban dwellers', therefore making it more of a cosmetic initiative than a radical one (Crowley 2006:206). She advocates the integration of farmers' views into the scheme's design because the present complexity of REPS specifications sets up an unequal power structure where farmers are heavily dependent upon state officials for interpretation (Crowley 2006:207). It is clear that interested parties must view the requirements from the farmer's perspective and that farmers must be allowed the discretion and freedom to exercise their own management skills if such schemes are to work (Nugent 2000 www.farmersjournal.ie).

Farmers themselves criticise the scheme for its narrow approach and one farmer, who manages land in the Burren Hills of county Clare, believes that 'the Department is still hoping that a scheme with a one size fits all criteria will work for farmers and this is not always the case' (Fox 2007 www.farmersjournal.ie). The success of the scheme is restricted through the limitations of option choice in that farmers are restricted to applying for only one supplementary measure. The Heritage Council advocate that, if a tightly controlled cumulative payments system was introduced, which allowed farmers to obtain more than one payment for undertaking positive measures relating to a range of heritage issues then this would benefit Ireland's heritage enormously (Heritage Council 2008 www.heritagecouncil.ie).

A further difficulty of the REPS concerns the REPS planners themselves. Whilst many planners are employed by Teagasc every farmer has the opportunity to select their own REPS planner from an approved list of planners which includes the services of a significant number of private individuals and firms. As far as the built heritage is concerned, research undertaken by Sullivan (2004), across five counties within the Republic, reveals evidence that the majority of both government and private REPS planners do not feel confident about offering protection advice for enquiries received from farmers concerning the nature and significance of monuments on farm land. Half of the planners interviewed also felt that they needed

further training themselves in both the identification and protection of historical and archaeological monuments (Sullivan 2004:110).

Another major weakness of the REPS is that there is no comprehensive monitoring or evaluation of the scheme which would indicate whether or not it is achieving its objectives (Heritage Council 2008 www.heritagecouncil.ie). The long-term impacts of agri-environmental policies, in particular the ability of those administering such schemes to sustain the potential benefits produced well into the future, is seriously under-researched (Morris & Potter 1995:52) and an almost universal absence of suitable baseline data means that policies are intrinsically difficult to evaluate. The European Community acknowledges this fact and appreciates that there is a need to construct a strategic and long-term monitoring and evaluation system (Buller 2000:212; Baylis et al 2008:760; Matthews 2008).

5.5 <u>The countryside as an available asset</u>

Access to the countryside is important because it is the way in which the public effectively 'consume' the multifunctional outputs of Irish agriculture and activities such as walking, hiking and climbing, provide a major incentive for tourists to visit many parts of rural Ireland (Agri Vision Report 2004:40). However, all land within the Republic of Ireland is owned either by private individuals or state bodies and members of the public do not have an automatic legal right of entry. Consequently, unlike England, there are very few designated public rights of way and those areas, which have been developed specifically to provide recreational access, are very limited. In Ireland, landowners have a duty of care to those entering their land and farmers have consistently voiced concerns about the potential liability that may result should an individual injure themselves whilst crossing their land and subsequently take legal action. Framers are understandably concerned that greater public access may result in increased insurance premiums, threats to their livelihood resulting from any potential legal action, threats to livestock and crops as well as increased workloads for no meaningful return. Concerns have also been expressed that income may be reduced from the sale of land devalued as a result of public rights of access running through it (Buckley et al 2008:8). A working paper, by Buckley et al (2008), has shown that only 49% of landowners in Ireland would be willing to provide such access free of charge or in return for appropriate compensation. Their research highlighted the fact that, such willing providers are more likely to be farmers operating upon marginal land in the west or south-west of the country.

Additionally, they are also more likely to be individuals involved in agri-environmental payment schemes such as REPS and, as a result, their willingness may be partly explained by their familiarity with such schemes that are designed to embrace the concept of providing environmental goods in return for compensatory payments.

Attempts have been made to address public access and leisure activities through supplementary measures with the first phase of the REPS promoting this under supplementary measure six. However, this did not prove to be a popular choice with farmers who were concerned over public liability and control issues. There is no doubt that such access would enable farmers to derive the maximum benefit from the historical and archaeological features situated on their farmland and it is possible that new initiatives under REPS 4 may address previous concerns and, hopefully, provide a viable solution. In addition, such issues are also being tackled through the *Countryside Walkways* initiative launched by the IFA. Despite this, in a public survey, undertaken by Campbell et al (2006), respondents were adamant that farmers should have the right to prevent access to their land. Given that this view is clearly held by the members of the general public who may well be amenity users, this result does not bode well for the future or potential success of the *Countryside Walkways* initiative.

5.6 Into the west

The west of Ireland possesses a rich tapestry of heritage that encompasses lakes, rivers and coastline, mountainous regions, towns and villages, monuments, customs, language and traditions. The Mayo coastline is the longest in the country and habitats range from sea cliffs to rocky shores and sandy beaches (County Mayo Heritage Forum 2006:1). Indeed, the west of Ireland came to be perceived as a pool of cultural and racial strength and beauty that embodied the Irish nation as a whole (Kneafsey 1995:137). Here, farmers have traditionally experienced a close personal relationship with their land and Irish speakers, in particular, were especially intimate with the natural features upon their land, lavishing them with names to commemorate some ancient owner or legend (Duffy 2007:65).

The Irish landscape itself has, according to Crowley (2006), become 'a commodity, used primarily to satisfy the needs of the tourist industry' and it is perhaps no accident, as she asserts, that most of the uptake of REPS has been in the west; a scenically attractive area that

is heavily dependent upon tourism (Crowley 2006:102) (*Plates 5.3 and 5.4*). Certainly, that part of REPS which enforces the protection of sites of historical interest is conservationist in style and it is clear that tourist revenues are the main financial incentive for this (Crowley 2006:102).

The REPS would, therefore, have appeared to be the ultimate answer for farmers in the west because it would support farm income by encouraging farming practices that benefit the environment and produce a landscape that is representative of the 'picture postcard' images demanded by the tourist gaze. One would, therefore, have expected uptake of the scheme to be exceptionally high throughout the west of Ireland and, although county Mayo is one of the areas where uptake has been strongest, with 54% of all farmers in the county participating, this is not representative of the area as whole. Uptake is relatively high in counties Clare, Galway and Sligo at 49%, 45% and 42% respectively but in county Roscommon participation rates are as low as 26%. These rates are typical of participation rates throughout the Republic the majority of which fall between 25% and 49.99% as demonstrated in *figure 5.1* which fully maps the percentage allocation of farms across the country under the Rural Environmental Protection Scheme at an individual county level.

The CAP ultimately widened the gap between rich and poor farmers in Ireland and, in awarding those farmers who produced the most goods, it has pushed smaller farmers to the margins of society (Crowley 2006:68). In more peripheral areas, like the west of the country, small farms have collapsed and waves of emigration have tightened their grip on rural communities (Whelan 1997:99). Farming families are now finding it much more difficult to survive on the income from farming alone and part-time farming has become extremely common. Indeed, in 2002, the farmer or spouse held an off farm job on just under half of all farms (Crowley 2006:52). For one Mayo farmer interviewed, despite participating in REPS, income from sheep farming alone was insufficient to maintain himself and his family. The farmer worked off farm for the majority of the day, as did his wife, and they additionally maintained a holiday rental cottage on their land, to further supplement income (interview 28/04/09). In general, farming as an occupation has been devalued and as a result there has been a decline in attractiveness of farming as an occupation. There have been serious repercussions for rural communities including a decline in farm networks and social support

structures, rising levels of stress and a fundamental restructuring of rural societies (Ní Laoire 2002:17).

Subsequent CAP reform has merely resulted in the zoning of the Irish countryside into productive and environmental zones divided along east/west lines (Crowley 2006:68). Compared to the rest of the country, the west of Ireland has experienced a more rapid decline in small scale farming, a greater level of farms switching out of tillage and dairying and a greater tendency to take up agri-environmental schemes. There has also been a greater tendency to take up farm forestry as an alternative land use. Such enterprises have expanded more rapidly in the west boosted by financial incentives that accompanied a special western package of measures introduced in the early 1980s (EPSON 2006:138).

Farms in the west remain characterised by a high proportion of elderly, unmarried farmers on smaller, poorer, dry-stock farms who are involved, for the main part, in low-income cattle and sheep grazing activities (Gillmor 1999a:83). Whilst these farmers are most in need of help, REPS may not reach such farmers for a number of reasons. Firstly, the economic costs involved in meeting REPS requirements may simply be too great. Secondly, joining REPS may require engagement with a level of bureaucracy, accounting and capability that is beyond the realm of such marginal farmers (Crowley 2006:119) and lastly, in the case of the west of Ireland, farms may simply not be large enough to join the scheme.

Plate 5.3: Beautiful scenery typical of the west of Ireland (county Mayo)

Plate 5.4: Beautiful scenery typical of the west of Ireland (county Mayo)

5.7 REPS participation rates

Participation rates within REPS are highest in county Leitrim where 89.31% of farmers have joined the scheme. In comparison, counties Kilkenny, Louth and Dublin reflect the lowest participation rates, at 24.75%, 23.13% and 13.74% respectively, placing these three counties in the highest risk category for non-participation in agri-environmental schemes (*figures 5.1 and 5.2*). Such low rates of participation are of considerable concern for the environment, in terms of both its natural and built heritage, because of the potential harm from farming practices which are not as environmentally friendly as those promoted within REPS.

By comparison, participation rates throughout the rest of the country are similar and range between 25% and 49.99%, with the exception of counties Waterford, Mayo and Donegal where participation rates are considerably higher than the national average. In terms of the built heritage, which is the focus of this research, these figures become particularly poignant when monument density is taken into consideration and this is fully explored within a later chapter.

5.8 A different approach

The Burren (*Plate 5.5*) is an internationally important carboniferous limestone region of some 450 square kilometres situated in the north-west of county Clare, western Ireland (Jeličić & O'Connell 1992:119). The region is completely distinct from the area that surrounds it in terms of its geology, geomorphology, natural history and archaeology (Jones 2006:19). It is noted for its classic glacio-karstic features and pastoral farming has played a pivotal role in shaping the cultural landscape that exists today (EFNCP 2000:4). For disadvantaged areas such as the Burren, where there has been a serious decline in agriculture, tourism offers an attractive alternative and interfaces with other major land uses such as farming and forestry (Halton 1993:166).

Plate 5.5: Poulnabrone wedge tomb situated on a karst limestone plateau in the Burren

Within the context of sustainable integrated development it is essential that farming and tourism operate in close harmony (Halton 1993:166) but, as Halton (1993) points out, the Burren's vulnerability to tourist pressures is of particular concern when attempting to secure the optimum benefits available whilst avoiding any detrimental impact upon this sensitive and internationally important environment. It is essential that tourism developments are kept in scale and keeping with landscape amenities which are, after all, the main tourist attraction in the first place.

In an attempt to secure the future of the area with regards to tourism and recreation, the BurrenBeo Trust was established seven years ago (interview 30/04/09). This voluntary organisation has a busy and diverse programme and has established an office and visitor centre in Kinvara. Through the promotion of holistic and self-sustaining conservation and development, resulting from research based on national and international best practice, the trust aims to create greater appreciation of the Burren as a living landscape of international importance. One of its objectives is to suggest models of sustainable ecological and economic development and it plans to achieve this by engaging farming families and local communities in any decision making processes that affect the area. Additionally, through outreach work in local schools, the trust plans to raise the consciousness of local children and their families concerning the very special nature of the Burren (Burrenbeo 2009 www.burrenbeo.com).

One of the achievements of the Burrenbeo Trust has been the introduction of the *Burren Walks Project*. This has been enhanced by the implementation of a Walks Scheme which has engaged with local farmers in the area to maintain and enhance Waymarked ways and looped walks. The Burren Walks Project has recently launched three new Burren walking loops; the Carron Loop, the Ballyvaughan Wood Loop and the spectacular Black head Loop which range in distance from 9-26 kilometres. Éamon Ó Cuív, TD and Minister for Community, Rural and Gaeltacht Affairs, speaking in August 2009 about the Burren Walks Project believes that it will 'contribute to achieving long term and lasting economic benefits for the area'. He acknowledges that it has brought communities together in terms of marketing, promoting and developing the area and has generated a great response from tourism businesses throughout North Clare (BurrenBeo E-Newsletter August 2009).

The Burren possesses the highest concentration and perhaps the highest diversity of archaeological remains in Ireland (Heritage Council 2006:iii). At an average of 4.3 monuments per square kilometre, the Burren is well above the national average of 1.4. This unusually high concentration of monuments is due to the fact that most of the land on the Burren has not been conducive to clearance (Heritage Council 2006:22). However, in the west of Ireland generally, but in the Burren particularly, the traditional landscape is gradually being replaced by extensive mono-crop forestry and scrub encroachment (NUI et al 2005:13).

The landscape of the Burren has been shaped and managed through traditional farming practices which have included the evolution of a system whereby livestock are grazed on the limestone pavements throughout the winter months; a system of grazing known as 'winterage'. As a result of the cattle grazing on the lower ground during the summer months the upland plants are able to set seed freely providing excellent resources for the cattle when they are moved there over winter. Importantly, this practice helps to prevent natural succession to hazel woodland but, in recent years and perhaps as a result of the decline in agriculture in the area or a change in agricultural practices, hazel scrub has been expanding in some parts of the Burren (Heritage Council 2006:iii). *Plate 5.6* demonstrates the impact that uncontrolled scrub growth can have upon an archaeological monument. The first photograph was taken as part of a report prepared for the Heritage Council to assess landscape change in the Burren and the resultant effects upon the archaeology and shows the Parknabinnia wedge tomb almost completely enclosed by scrub (Heritage Council 2006 in back of arch literature folder – assessment of landscape for Burren) whilst a more recent photograph shows the monument as it is at present after the removal of scrub growth has taken place (*Plate 5.7*).

The Burren, having one of the most important concentrations of monuments in the country, therefore requires a different approach to its management and protection. Whilst other areas may have a higher density of monuments per square kilometre they occur over a much smaller area and so, as far as is discernable, no other area of this size has the same sustained density of monuments (Heritage Council 2006:24). Unequalled anywhere else in Ireland, the quantity of different monument types and the quality of their preservation make the Burren an ideal place to study changing patterns of settlement and land use from the prehistoric through to the medieval period. Such studies are of crucial importance not only regionally,

Plate 5.6: Scrub growth around Parknabinnia Wedge Tomb, County Clare

Plate 5.7: Parknabinnia Wedge Tomb, the Burren, county Clare, after scrub removal

but also nationally and internationally (Heritage Council 2006:25). The pilot Field Monuments Advisor Scheme, co-funded by Clare County Council and the Heritage Council, supports those landowners who care for archaeology on their land through the provision of information on the sites and monuments themselves and how best to preserve them. So far, the scheme has concentrated on the area south of the Burren from the coast at Lahinch as far as Dysert O'Dea (Rural Resource Development Ltd 2008:19).

In addition, the *BurrenLIFE* project is a five year European funded pilot project that is concerned with the regions farming and conservation and incorporates 20 Burren farmers, 75% of whom are in REPS. Although the scheme is primarily concerned with farming, and not the archaeological record, it aims to change the way people farm in order to enhance both the environmental and heritage output of the area. The *Burren Agreement* allows the farmers of the Burren a certain amount of flexibility in their farming practices and the old tradition of winter grazing cattle in the area's uplands, which would not normally be permitted as part of a REPS plan, is in fact allowed (interview 30/4/09). There is no precedent to these traditional winterage areas which are rich in flora, fauna and archaeology and they are unique to the Burren as are the traditional farming practices that accompany them. Indeed most of these areas are candidates as Special Areas of Conservation (SACs) (Nugent 2000 www.farmersjournal.ie). The project has been so successful that it has now been extended until 31st January 2010 when a new farming for conservation programme is expected to be introduced for the area (BurrenBeo E-Newsletter September 2009).

In order to further inform REPS farmers in the county Clare area, *BurrenLIFE* project advisors have been invited to promote their particular area of work to REPS participants attending the compulsory 20 hour training courses designed and organised by Teagasc. Speakers are invited to deliver lectures and involve participants in a series of field trips in an attempt to augment what they learn from the basic course information (interview 30/4/09).

It would appear then that in the Burren in county Clare, at least, some of the issues and weaknesses surrounding REPS are beginning to be addressed. The vast majority of the region's farmers view REPS as both positive and beneficial but, due to the uniqueness of the area, there have been some initial problems with the scheme (Nugent 2000 www.farmersjournal.ie). Restrictions on the grazing of cattle in the uplands over winter and limits on scrub control have deterred some farmers from participating in REPS. These issues

have now been addressed through the Burren Agreement. With the introduction of the pilot Field Monuments Advisor Scheme and the work of *BurrenLIFE* project advisors the future prospects for farming in the Burren appear positive. If such schemes and projects can work in harmony with the Burrenbeo Trust and one another then an integrated development strategy for the social, cultural and economic benefit of the Burren community may just be achievable.

5.9 The current crisis facing Irish agriculture

At the beginning of 2009 there were growing concerns that REPS was in danger due to Government cutbacks. The situation was worsened by a serious delay in payments experienced by a high percentage of REPS farmers. This placed an enormous financial strain on many farm families who had been waiting for up to a year for their payments despite having already invested heavily in expensive upgrades in the first year of their plan in order to meet scheme requirements (Mayo Advertiser 2009 www.advertiser.ie). Uncertainty also raged amongst Teagasc planners whose short-term contracts were due to expire in July and December that year (Mooney 2009 www.farmersjournal.ie).

Difficulties were further compounded in April, during a presentation to the Dáil, when Brendan Smith TD, the Minister for Agriculture, Fisheries and Food, confirmed that a promised 17% increase in REPS 4 payments was to be reversed in light of the level of participation in the scheme and existing pressures on public finances (Department of Agriculture, Fisheries and Food 2009 www.agriculture.gov.ie). The payment increase of 17% from REPS 3 to REPS 4 represented a significant attraction to potential participants of the scheme but, in light of current announcements, this benefit has now been negated and few farmers have been willing to move from one scheme to the other (National Rural Network 2009 www.nrn.ie). Despite the announcement of reduced payments to REPS 4 farmers, the Minister confirmed that REPS applications would continue to be accepted (Department of Agriculture, Fisheries and Food 2009 www.agriculture.gov.ie).

Initial rumours that REPS may be closed to further applicants were denied in January 2009 by a Department of Agriculture spokesman (Mooney 2009 www.farmersjournal.ie) only to be confirmed six months later, in mid July, by the Government. Whilst the Government assured farmers that payments would continue to be made to current REPS 4 participants the scheme itself was to be phased out over the next five years. The announcement has effectively prevented around 30,000 existing REPS 3 farmers from entering REPS 4 and further excluded

all potential new applicants participating in the scheme (Longford Leader 2009 www.longford.ie). Field research also confirmed that the worst fears of Teagasc planners had been realised with those whose short-term contracts were due to expire failing to be renewed or altered significantly (interview 30/04/09).

5.10 Conclusions

As far back as the 1890's Tuke recognised that a uniform economic policy for the whole of Ireland would not be successful because of the polarisation of farming that already existed by the late nineteenth century. He was deeply involved in poverty relief work in Connemara, in the west of Ireland, and acknowledged that a policy which worked for the more prosperous eastern side of the country, with its tracts of arable land, would not be of benefit to the smaller farmers that composed the majority of Connaught and the surrounding counties. Smyth remarks that Tuke's opinions of the economic conditions of the western counties were extremely perceptive (Smyth 2007:30) and clearly they still hold true today.

Smaller more marginal farms have benefited most from the introduction of REPS but, whilst improvements in farming practices have undoubtedly led to a reduction in environmental impact, incentives so far have been insufficient to attract membership from the more intensive commercial farmers who have the most detrimental impact upon the environment. There is very little evidence that REPS has actually enhanced the environment and particular concerns about a lack of adequate monitoring and an absence of specified targets mean that the scheme is far from perfect (Shucksmith et al 2005:93).

Although REPS was compulsory for Ireland, under EU CAP regulations, the scheme continued to remain voluntary for the individual farmer. It was, therefore, unlikely that those farmers who chose to remain outside the scheme, for whatever reason, would have chosen to come on board unless their individual concerns had been addressed. Many smaller farmers simply continued to remain outside the scheme because of their ineligibility as a result of the small size of their holding or for more personal reasons such as their age or inability to commit to the amount of paperwork that the scheme entailed. Larger farm enterprises, who subsequently qualified for a derogation under the Nitrates Directive, may have been persuaded to join REPS in light of less stringent regimes however, given payment restrictions

based upon farm size and the fact that necessary improvements to the farm would not be cost effective, this has proved an unlikely scenario.

The closure of the REPS scheme is likely to have a devastating impact upon farmers with REPS payments representing a substantial proportion of overall income for many. The decision is likely to decimate rural areas with the potential for a more rapid decline in farming activity due to non-viability, a further reduction in farm employment and a substantial loss of employment in farm related businesses. It is almost certain that less environmentally friendly forms of farming will re-emerge in the absence of any incentives to discourage this. Whilst alternative funding measures under a new agri-environment payment have been promised, it is not clear whether these will build on the potential of the REPS to protect both the built and natural heritage and such measures have been described as a mere 'smoke screen' (Longford Leader 2009 www.longford.ie). The Government's decision has been described as 'economic lunacy' by the IFA with many farmers accusing the government of being 'totally out of touch with the plight of the farming community' and having completely 'lost the plot' regarding the crisis in Irish farming (Meath Chronicle 2009 www.meathchronicle.ie). It must remain to be seen whether any new or alternative schemes address the many issues that continue to persist within the farming community particularly and in rural areas generally.

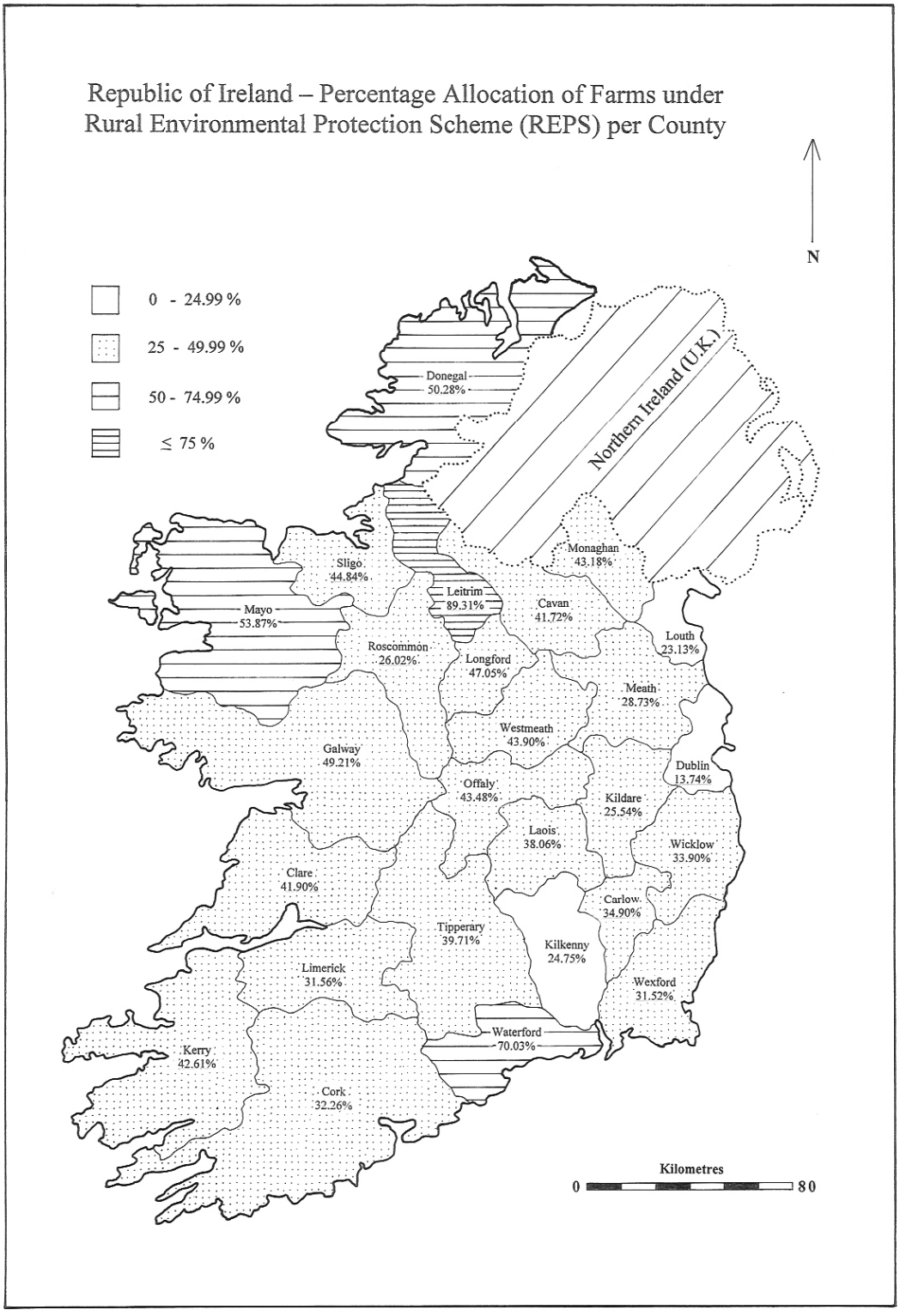
Republic of Ireland – Percentage Allocation of Farms under Rural Environmental Protection Scheme (REPS) per County
N
0 - 24.99 %
25 - 49.99 %
50 - 74.99 %
≤ 75 %
Northern Ireland (U.K.)
Donegal 50.28%
Sligo 44.84%
Leitrim 89.31%
Monaghan 43.18%
Cavan 41.72%
Mayo 53.87%
Roscommon 26.02%
Longford 47.05%
Louth 23.13%
Meath 28.73%
Westmeath 43.90%
Galway 49.21%
Offaly 43.48%
Dublin 13.74%
Kildare 25.54%
Laois 38.06%
Wicklow 33.90%
Clare 41.90%
Carlow 34.90%
Tipperary 39.71%
Kilkenny 24.75%
Limerick 31.56%
Wexford 31.52%
Waterford 70.03%
Kerry 42.61%
Cork 32.26%
Kilometres
0
80

Figure 5.1

County	No of farms	No of REPS farms	% Allocation of Farms Under REPS
Leitrim	3724	3326	89.31%
Waterford	2786	1951	70.03%
Mayo	12537	6754	53.87%
Donegal	8805	4427	50.28%
Galway	13662	6723	49.21%
Longford	2746	1292	47.05%
Sligo	4505	2020	44.84%
Westmeath	3437	1509	43.90%
Offaly	3521	1531	43.48%
Monaghan	4567	1972	43.18%
Kerry	8509	3626	42.61%
Clare	6720	2816	41.90%
Cavan	5491	2291	41.72%
Tipperary North	3855	1562	40.52%
Tipperary South	3914	1523	38.91%
Laois	3395	1292	38.06%
Carlow	1877	655	34.90%
Wicklow	2410	817	33.90%
Cork	14240	4594	32.26%
Limerick	6194	1955	31.56%
Wexford	4613	1454	31.52%
Meath	4462	1282	28.73%
Roscommon	6434	1674	26.02%
Kildare	2694	688	25.54%
Kilkenny	3770	933	24.75%
Louth	1764	408	23.13%
Dublin	895	123	13.74%
Totals	141527	59198	

Figure 5.2

THE ARCHAEOLOGICAL HERITAGE OF ENGLAND

'Archaeological sites represent one of man's most enduring contributions to the environment and concern for them is largely motivated by their human interest and the recognition and appreciation of the achievements and endeavours of past generations'

Darvill, 1987

Archaeological sites give the countryside its local character and provide evidence of human activity across time. The enormous changes, brought about by agricultural development in both England and Ireland over recent decades, have thrown the relationship between agriculture and heritage into sharp focus. Agricultural change has resulted in the damage and destruction of many features and the traditional farm buildings, which enhance the distinctive character of many localities, have been left derelict. The rural landscape has been shaped by farming throughout the centuries and yet, it is this very activity that now threatens what remains of the heritage.

The majority of the natural and built heritage remains in the private ownership of farmers and other land managers and it is vital that what remains is treasure so that it is not lost forever. Archaeological and historical features provide a sense of place and belonging to those who live and work in the countryside and hold a special appeal and fascination for visitors. Archaeological features are also of ecological value in that they enrich landscape diversity and provide wildlife habitats. The historic landscape varies greatly according to the different types of activity that have taken place at a particular site, their duration and intensity. They can be deliberate constructions, such as tombs and houses or the by-products of particular activities such as industrial pits, spoil tips and mines. Frequently, sites or finds come about through accidents or processes over which people, at that particular time, had little or no control such as lost or discarded objects. These may become incorporated into accumulated layers of peat bog. The line of a track way may become etched into the landscape simply through continued use over a period of time (Darvill 1987:6). However, many archaeological features survive without any surface expression or visibility and are only identifiable as a result of aerial photography, geophysical survey or accidental exposure.

Archaeological sites, monuments and artefacts provide an important medium for understanding cultural heritage and are themselves a physical expression of that heritage (UCD 2006:7). They stand alongside, and compliment, historical archives, maps and

illustrations. Some archaeological heritage relates to periods for which no historical documents exist and thus provides a platform upon which a knowledge and understanding of the past can be built that is well beyond that covered in written records (Darvill & Fulton 1998:1). Archaeological heritage can be defined in on of two ways. Firstly, it can be thought of descriptively, as the material culture of past societies which has survived to the present day. However, it can also be approached conceptually in that, it is the process through which this material culture is re-evaluated and re-used in the present (Skeates 2004:9).

Whilst the 'care and protection' of ancient monuments began in the late nineteenth and early twentieth centuries with the adoption of various Monuments Acts, this is not the same as the modern concept of heritage management which has developed in response to the serious threats facing all archaeological remains in modern society today. The principles of archaeological conservation began in the 1960s when the booming economy in Europe caused grave concern for the archaeological heritage and resulted in a significant number of rescue operations (Willems 1998:294). These principles have been developed within Europe over the last few decades and archaeological monuments, in the sense of the movable as well as the immovable parts of the cultural heritage, are no longer seen primarily as objects of study but as cultural resources for the use and benefit of present and future societies (Willems 1998:295).

This chapter looks at England's archaeological heritage and the risks that modern day agriculture poses to that heritage. In assessing land use types it is possible to ascertain the level of threat that different agricultural regimes impose upon the historic environment and how agri-environmental schemes are attempting to address those threats. By comparing monument density with the take up of agri-environmental schemes, on an individual county basis, varying levels of risk can be identified so that future research may target specific key areas. The following chapter revisits these themes within an Irish context so that comparisons between the two countries can be made.

6.1 The impact of modern day agricultural activity

Willems advocates that, in western Europe, the CAP 'has had an indirect but tremendous negative influence on the survival of archaeological remains' and he cites the Netherlands where 23.2% of archaeological remains have been lost due to the intensification of

agriculture resulting from application of the CAP (Willems 1998:300). Throughout Europe agri-environmental schemes are attempting to address this issue.

Land use has a profound influence upon archaeological sites and monuments and patterns of land use are constantly changing. Each land parcel has its own shape and size as well as history of use and change that may, or may not, be reflected in adjacent pockets of land (Darvill & Fulton 1998:146). Whilst much archaeology has been completely destroyed through agricultural activities, piecemeal loss is cumulatively more destructive despite being less noticeable and less sensational. Agriculture has been the main cause of this 'nibbling away' of archaeological sites and monuments (Darvill & Fulton 1998:122) and the loss of medieval ridge and furrow field systems is a good example of this. Darvill and Fulton (1998) identify the loss of medieval ridge and furrow systems in Northamptonshire (Darvill & Fulton 1998:125). However, personal fieldwork has highlighted the fact that this is also occurring at Braunton field in Devon and this is discussed later within this chapter.

The main protective designations, in respect of archaeological and historic sites and monuments at a national level, are established by the Ancient Monuments and Archaeological Areas Act 1979 and subsequently amended, for England, by the National Heritage Act 1983 (Darvill & Fulton 1998:192). English Heritage, officially known as the Historic Buildings and Monuments Commission for England, is the Government's statutory adviser in respect of the historic environment. This executive, non-departmental public body, is sponsored by the Department for Culture, Media and Sport although it works alongside a range of other Government departments, including DEFRA, as well as local authorities, voluntary bodies and the private sector to help realise the potential of the historical environment in England (English Heritage 2009 www.english-heritage.org.uk).

Growing concern for the protection and maintenance of England's monuments led to the establishment of the National Heritage Act and the formation of the Historic Buildings and Monuments Commission, in 1983. More familiarly known as English Heritage, this body integrates the former functions of the Historic Buildings Council for England and the Ancient Monuments Board and aims to both conserve and promote England's national heritage. The National Trust also plays a vital role in protecting buildings of significant historical or architectural interest (Holloway 1983:457).

In 1972 and 1979 new legislation was introduced, in England, introducing payments to farmers which were intended to encourage the improved management of ancient monuments. Additionally, the Agricultural Act 1986, placed a duty upon the Secretary of State to reasonably balance the interests of agriculture alongside environmental conservation, resulting in archaeological conservation becoming an objective of subsequent environmental farming schemes launched in 1987 and 1991 in respect of Environmentally Sensitive Areas and Countryside Stewardship (Trow 2004:37).

The Monuments at Risk Survey (MARS) was the first census of England's archaeological resource to be undertaken and was commissioned by English Heritage. Its specific aims were to provide a general picture of the condition and survival of England's archaeological monuments and to create baseline data from which future changes could be monitored. Work was carried out through four linked programmes; Field Survey, Aerial Photography, National Survey and Case Study Research and reference is made to the data throughout this chapter.

In England, nearly 80% of all known monuments lie within agricultural land, with 30% under pasture land and 27% under arable land, although there are notable regional variations across the country in respect of the general distribution of different agricultural regimes (Darvill & Fulton 1998:239). MARS estimates that almost 16% of all recorded archaeological monuments have been destroyed prior to 1995 and that eight percent have been destroyed within the last 60 years. According to Darvill and Fulton (1998), five main hazards account for 80% of these losses; agriculture, urbanisation and development, mineral extraction, demolition and building works and road construction. Land use is a critical factor in the survival of archaeological remains and around 95% of recorded monuments are situated within land used for either arable or pasture, developed land and semi-natural land or forestry, with only half of these now visible above ground level (Darvill & Fulton 1998:xix).

Of all the prehistoric monuments in Britain, barrows are the most numerous and enduring and therefore provide an excellent resource for study. Their most basic division is between long barrows, all of which relate to the Neolithic period, and round barrows which can be Neolithic or Bronze Age in date (Woodward 2000:8). In England, Long Barrows represent one of the most widespread, yet evenly distributed, classes of field monuments recorded and major groupings may be found in a number of regions including Wessex and the Yorkshire

Wolds (Woodward 2000: 45;103). By 1985, the Tiverton Long Barrow, in Devon, had been almost levelled as a result of ploughing activity and the only major discernable feature that remained was the ditch surrounding the barrow although, even this had been cut through by modern drainage features. When excavated, in 1985, the site had already lost around 80% of its original volume and, as a result, yielded little archaeological evidence (Darvill & Fulton 1998:18-22). Similarly, at Hambledon Hill, in Dorset, much of the causewayed enclosure has been destroyed through the conversion of downland pasture to arable. Preparatory earth removal impacted significantly upon the site and the southern long barrow was completely destroyed (Green 2000:50).

6.2 Different land uses and their impact on the archaeological record

6.2.1 Established Grassland

In terms of the area represented, pasture land in England is known to contain the highest proportion of recorded archaeology although, as Darvill and Fulton (1998) point out, it has yet to be 'fully exploited as a source of quality archaeological information' (Darvill & Fulton 1998:152). Whilst arable remains the dominant land use within England, significant tracts of established grassland remain representing 24% of land use in the country (Darvill & Fulton 1998:151).

Established grassland is the best landscape environment for the preservation of archaeological remains (*Plate 6.1*). This is because grass is not deep rooting and therefore little ground penetration occurs and, whether used for grazing or as a source of cut grass for hay and silage, the grass provides a robust cover that additionally serves as a 'self-generating sacrificial layer' in the event of surface abrasion. Additionally, such land use discourages the use of heavy machinery that will disturb the ground (Darvill & Fulton 1998:175). However, modern farming does not favour long-term grassland and the amount of such land has decreased significantly over the last few decades and now tends to be managed as small islands within a landscape that is used for a variety of different purposes. In England, a change in land use from established grassland to arable or rotational grassland accounts for the loss of about 95% of all grassland in the twentieth century alone (Darvill 1987:87) with land under pasture decreasing steadily from 43% in 1947 to only 33% in 1990 (Darvill & Fulton 1998:174).

Grassland is also threatened by sub-soiling and drainage which is intended to improve pasture and, additionally, by scrub invasion where grassland is not properly maintained. If land is not farmed over a long period of time vegetational succession will occur and grass will give way to scrub which will, in turn, give way to trees. In Wessex, there are several examples of this and barrows which were previously fenced off for protection now provide a valuable lesson about the possible consequences for the landscape if the land is not managed appropriately (Morgan Evans 1986:9). However, overgrazing and the removal of walls and boundaries, together with localised threats, such as footpath erosion and vehicle use, are also potentially damaging to established grassland and any archaeology that may be present.

Plate 6. 1: Burderop Down, Wiltshire. Celtic field systems under pasture

6.2.2 Arable land

Arable landscapes are entirely man-made and comprise of regularly cultivated areas of land producing cereals, fodder and vegetable crops. In England, arable landscapes represent the largest single landscape category, covering 39% of land area, yet they are among the most unstable environments and the least hospitable as far as archaeological remains are concerned. The mechanisation of arable cultivation, in the last century, has allowed a steady

expansion of agricultural regimes into areas that were previously under-utilised and contained monuments that had remained undisturbed (Darvill & Fulton 1998:129). Whilst technical studies and simulations show that plough damage varies widely, according to the topography and geology of local areas, they demonstrate that ploughing still represents the most acute threat to the archaeology situated within such land (Darvill & Fulton 1998:129).

Plate 6.2: Rare Iron Age fortification at Arbury Banks, Northamptonshire ©English Heritage

Braunton Field, in North Devon, is home to one of the largest surviving medieval apron field systems in Europe. The field boundaries of High Thorn, Middle Thorn and Lower Thorn, were originally curved. However, evidence shows that some of these have been gradually eroded by ploughing and are now partially recorded as straight lines in current Ordnance Survey maps of the area. The site is not part of an agri-environmental scheme and, whilst the local community are doing their best to preserve the integrity of the site, participation in an agri-environmental scheme, may help to prevent the continued gradual erosion of the remaining features (interview Devon County Council April 2009). Similar damage has occurred at Arbury Banks, Northamptonshire where ploughing has destroyed half the protective covering of medieval ridge and furrow and is also damaging the underlying fortification (*Plate 6.2*) (English Heritage 2009a www.picselect.com).

Cultivation itself is an extreme threat yet, if not regularly cultivated, natural succession will also cause damage by turning the arable land to scrub land and eventually to woodland resulting in sub-surface ground disturbance by root penetration (Darvill 1987:117). This has been the case at Castle Dyke, an Iron Age hillfort situated near Teignmouth in Devon (*Plate 6.3*). Once a predominantly agricultural area, some fields still remain but housing development has taken place together with the construction of a golf course. Much land around the site remains in a neglected state. The remaining defence works are just visible as a raised platform along the line of mature trees in the photograph but the earthworks would have originally been much deeper and taller. The site is now scheduled and a considerable number of trees have been felled around the hill fort with young trees and shrubs additionally being controlled to prevent their roots causing further damage to the archaeological remains (*Plate 6.4*). Sadly, it is clear that significant damage has already occurred at the site, due to natural woodland succession. The inclusion of the land within an agri-environmental agreement at this late stage will only serve to retain the site in its damaged state.

Arable landscapes are of very great archaeological importance because they cover a large proportion of the countryside and are found in areas which have attracted successive generations of human settlement. They have been a feature of the English landscape since the Neolithic period when settlers introduced farming which became their main source of food. In England, early evidence of arable cultivation is demonstrated through a series of ard-plough marks below the South Street Long Barrow, near Avebury, Wiltshire (Pryor 2006:148). There are a vast array of sites and monuments found within the arable landscape including numerous settlement remains and the field systems and agricultural facilities that are often closely connected with them. Ritual and ceremonial monuments and earthworks are scattered throughout the countryside together with fortified earthen sites such as Iron Age hillforts and the Motte and Bailey castles of the later Norman period. Industrial monuments and sites may also be located on arable land and encompass flint knapping sites, mining, stone quarries, marl pits, clay pits and workshops.

Plough damage results from the passage of the plough itself which causes abrasion and attrition of underlying deposits and tears any loosened archaeological material from its original context. Farming, but especially arable production, has been described as the most

destructive process by far in the Stonehenge area and aerial photography is able to demonstrate the remains of at least 62 earthworks which have been levelled (Peters 1999:258).

Plate 6.3: Castle Dyke, Iron Age site demonstrating natural succession of woodland growth

Plate 6.4: Active management at the Castle Dyke Iron Age site

Evidence of destruction can also be clearly seen at Stanwick in Northamptonshire where Roman mosaics were badly damaged as a direct result of ploughing (*Plate 6.5*). Ploughing also opens up the soil structure allowing natural elements to penetrate further into buried deposits and frost and water can be especially damaging (Darvill 1987:128). Sub-soiling and drainage work on cultivated land can cause direct damage whilst the addition of chemicals, such as pesticides, herbicides or nutrient supplements, can upset the balance of the soil causing the deterioration of certain archaeological materials such as bone or metal. Additionally, stubble burning or bonfires can lead to contamination through modified carbon which is carried under the soil by worms (Darvill 1987:128).

Cultivation techniques on arable land vary according to soil type and crop choice but all result in some disturbance to subsoil and, in areas where soil levels are low, the natural bedrock may also be disturbed. However, archaeology still survives in such areas and, through sympathetic management, the rate of loss of remains can be slowed enabling some sites to be preserved *in situ* (Darvill 1987:117). However, the majority of sites in arable land have been flattened as a result of successive ploughing and are now difficult to detect at surface level. Despite archaeological survival being highly variable on such land, some sites do continue to exist as an archaeological oasis of uncultivated land within a sea of tilled fields. This may be because the ground was simply not suitable for ploughing although some farmers may have deliberately ploughed around sites out of respect.

Yet, damage to archaeological sites and monuments through cultivation is not a modern day phenomenon. Indeed, Darvill and Fulton (1998) argue that later prehistoric, Roman and medieval cultivation have all caused major damage to earlier monuments within England (Darvill & Fulton 1998:128). Peters (1999) is able to show that, in the Upper Thames Valley gravels, land use patterns, which were well established by the medieval period, have had a direct impact upon the destruction of barrows located in the upper gravel terraces (Peters 1999:258). Case et al (1965) similarly argue for evidence of medieval ridge and furrow work in the surface of plough soil located over one of the barrows at Hanborough in Oxfordshire (Case et al 1965:33; 35). In the Stonehenge area, research has shown that ploughing in medieval open fields destroyed most of the barrows inside. The report concludes that, medieval and earlier farming has destroyed more barrows than the more modern methods of farming used in the nineteenth and early twentieth-century (RCHME 1979: xvi-xix).

Plate 6.5: Plough damage to Roman mosaic at Stanwick, Northamptonshire ©English Heritage

In England, it is estimated that arable farming has been responsible for the complete destruction of around ten percent of observed cases and has caused damage to a further 30%. Arable cultivation has impacted significantly upon early field systems and large single monuments with recorded destruction rates of 66% and 38% respectively (Darvill & Fulton 1998:128). Significantly, in England, there are currently no effective controls on the incidence of cultivation over archaeological monuments. Land use change, which subsequently brings land into cultivation, remains outside the scope of town and country planning regulations and, in respect of scheduled monuments, there is a class consent for the continuation of cultivation (Darvill & Fulton 1998:130). The continued loss of archaeological features resulting from the continued cultivation of arable land is likely to have serious repercussions for England's heritage.

6.2.3 Lowland and Upland heath

Today, most areas of lowland heath are used for low intensity grazing, usually by sheep. Unlike cattle, sheep are too light to cause much damage to standing monuments and their grazing prevents the destructive regeneration of scrub and trees. Additionally, sheep

compete for food with rabbits whose burrows can cause significant damage to archaeological features (Canham & Chippindale 1988:53). Other lowland landscapes have become areas for recreation which may lead to the destruction of sites and monuments as a result of natural, animal or visitor erosion. In England, in particular, other sites have become military training grounds or are subject to mining or quarrying (Darvill 1987:109).

In contrast, upland moors are generally classified as being of low agricultural potential and they have resulted from a long and complex series of changes induced by a combination of human interference and climatic change. On Dartmoor, for example, much of the poor grazing land of the uplands today was once valuable rich pasture land during the Bronze Age when the soils were much less acidic (Dartmore National Park Authority 2003:14). The uplands are home to a wide range of exceptionally well-preserved archaeological monuments including settlements, field systems, defences, ritual and ceremonial monuments, track ways and boundaries. In addition to threats similar to those affecting lowland moors, upland moors may also be subject to water catchment and other conservation projects which may impact upon the archaeology of the area (Darvill 1987:148). Whilst outside the geographical area of this study, the construction of a reservoir in the uplands of LLyn Brenig, just over the English border into North Wales, means that much of the rich archaeological heritage of the area is now submerged below water (Wathern et al 1987:334).

The upland landscape has been used mostly for extensive pastoral farming until recently but significant changes in agricultural use and the introduction of forestry schemes have become major threats to the archaeological record. Only a small amount of monuments are scheduled meaning that the remainder fall outside this category. The protection of the majority of sites and monuments is achieved through existing land use planning legislation. However, forestry and agriculture are not defined as development under the planning acts. Their exemption means that prior approval for change is not required and, as a result, damage to a site or even its complete destruction may go completely unnoticed (Wathern et al 1987:342). As far as forestry initiatives are concerned, it is the deep ploughing that takes place prior to planting that causes extensive damage to sites. Additionally, whilst ploughing prior to reseeding can be damaging, the construction of farm roads can also impact significantly because they not only damage sites physically but open up formerly inaccessible areas to subsequent intensification (Wathern et al 1987:346).

Natural England has recently introduced Upland Entry level Stewardship (UELS) with higher payments available to farmers to protect this valuable landscape (Natural England 2009:2). It is anticipated that most farmers will be eligible for the scheme with little change required to existing management regimes. Trials indicate that the majority of farmers will participate for predominantly financial reasons but, given their concerns over some of the requirements and criticism over low point allocation for some of the available options, they do not view the scheme as a solution to hill farming issues (SW Uplands Federation 2008:2).

6.2.4 Bog land

Britain has extensive areas of blanket bog and, in the south west of England, it forms a distinctive rural landscape (Tomlinson 1997:117). Like Ireland, much of the peat in these areas has been cut for fuel and other areas drained for agricultural improvement or forestry plantation (Dartmoor National Park Authority 2004:3). Dartmoor possesses the most southerly area of blanket bog in Europe and National Park Management Agreements, together with ESA classification, cover over 75% of the bog land area with four areas of blanket bog also designated as SSSIs (Dartmoor National Park Authority 2004:5). The Dartmoor reaves remain the best preserved coaxial boundaries in southern England (Fleming 2005:187) and Dartmoor arguably provides one of the best prehistoric landscapes in north-west Europe. The nineteenth-century antiquarian Thomas Northmore was immensely excited about the archaeological riches of Dartmoor and had called for a complete record of the antiquities of the area by the early 1820s (Fleming 2005:21). Dartmoor's ceremonial monuments, field systems, land boundaries and settlement sites are easily visible and identifiable providing a palimpsest landscape rather than a series of isolated sites so that the relationship between the monuments of different periods can be readily studied. Although most of the archaeological sites and monuments on Dartmoor are technically on privately owned land, access to them is virtually unrestricted (Fleming 2005:205).

Bogs are of great value to archaeologists as they preserve key climatic and environmental indicators, such as pollen and other micro or macro plant parts as well as insect and animal remains. Maintaining high water levels in these areas will help to preserve the anoxic environment which favours the preservation of remains (Renfrew & Bahn 2004:72). Over the last few centuries the peat bogs of England, Ireland, Denmark, Holland and Germany have yielded the preserved corpses of over 1,800 individuals (Parker Pearson 2003:67). The body

of Lindow Man, discovered during peat cutting activities in 1984 at Lindow Moss in north-west England, was exceptionally well preserved and research has provided a remarkable insight into the life and death of this individual (Renfrew & Bahn 2004:456).

Wetlands vary a great deal in their preservation qualities and, whilst acidic bogs may destroy bone, iron and even pottery, they preserve wood and plant remains exceptionally well. Excavations at the Somerset levels, in south-west England, have revealed two Iron Age lake villages at Glastonbury and Meare. Further work has unearthed numerous ancient wooden trackways which include a 6000 year old stretch of track believed to be the world's 'oldest road' (Renfrew & Bahn 2004: 72). The abundantly well preserved timbers of wetland sites have proved invaluable for dating purposes and the study of the annual growth of tree rings has enabled an accurate chronology to be established for northern Europe that stretches back for thousands of years (Renfrew & Bahn 2004:73).

6.3 Protection under agri-environmental schemes

Agri-environmental schemes in England and the Republic of Ireland, whilst attempting to satisfy the same EU requirements, operate quite differently. Agri-environmental policy in Ireland, through the REPS, has always been an all embracing scheme available to any farmer on a voluntary basis. This is now even more significant given that the latest phase of the scheme which encourages the larger more intensive farmers, who previously opted out of the scheme, to participate. It should, therefore, result in more environmentally friendly forms of agriculture across an even greater land area than at present. In contrast, in England, whilst Entry Level Stewardship is available to those farmers able to gain sufficient points, appropriate to their farm size, from a given menu, Higher Level Stewardship remains targeted thus limiting the number of farmers and landowners able to participate in the scheme.

Farmers in England own well over half a million traditional farm buildings, thousands of miles of traditional boundaries and countless historic features, making their role centrally important for the conservation and management of the English landscape (English Heritage 2008 www.english-heritage.org.uk). In November 2005 English Heritage highlighted the challenges facing the rural historic environment in their publication *Heritage Counts*. In response to some of the issues identified, English Heritage are working jointly alongside both the Countryside Agency and Natural England to produce a series of regional documents on

the conservation and adaptive re-use of traditional farm buildings. These will supplement their existing leaflets designed to help farmers and landowners understand important features such as prehistoric and medieval settlements, prehistoric burial mounds and battlefields and how best to protect them (English Heritage 2009 www.english-heritage.org.uk). English Heritage is now part of MAFF's Agri-environmental forum and therefore plays an active role in the review and development of England's agri-environmental schemes (Darvill & Fulton 1998:179).

6.3.1 Entry Level Stewardship

Entry Level Stewardship requires the farmer to meet a points target which can be achieved by choosing between 50 simple management options, each of which is worth a certain number of points. Management options offered are not as comprehensive as those offered for Higher Level Stewardship and the scheme aims to recruit farmers without the need for guidance from Natural England advisors or independent agents. Additionally, options are available to suit most types of farms as the following discussion reveals.

Option ED2 is available on arable land and temporary grass leys and requires the farmer to take archaeological features currently on cultivated land out of cultivation. A boundary must be chosen that encompasses the feature and provides a sensible and practical field division where necessary. Although the area can be sown this cannot be achieved through ploughing. The area may also be left to regenerate but scrub growth must be controlled and the site must be managed as permanent grassland by grazing or mowing. A farmer must take care not to allow any bare patches of soil to develop. A continuous grass sward must be maintained but supplementary feeding is discouraged. Any animal troughs must not be sited on or next to archaeological features (*Plate 6.6*) and the use of heavy vehicles must be minimised, particularly in wet weather, to prevent damage caused by wheel rutting and compaction. Obvious earthworks must be avoided during harrowing or rolling activities and farmers are prohibited from tipping or dumping any materials on an archaeological feature (Natural England 2008).

Plate 6.6: Cattle trough situated immediately next to Bronze Age cairn (prohibited under ELS)

A further option, ED3, allows for alternative arrangements where it is not practical to remove an archaeological feature from cultivation and prescribes the 'next best' option of reducing cultivation depth through the use of non-inversion, or minimum tillage, machinery rather than standard ploughing equipment. Areas must not be used for farm access and the option prohibits sub-soiling activities and the use of a mole plough or other machinery likely to cause rutting or compaction. Farmers are not allowed to grow maize, root and tuber crops, short rotation coppice or miscanthus and any spring crops which are sown require the maintenance of the previous overwintered stubble until February (Natural England 2008).

Option ED4 refers to the management of scrub on archaeological features which can cause damage, especially to buried features, through disturbance by root penetration, wind throw or by attracting burrowing animals such as badgers and rabbits or sheltering stock. A farmer must prevent the spread of weeds, shrubs, saplings and scrub to avoid root damage further scrub and this may be achieved by either grazing and/or mowing. Scrub must not be removed at certain times to avoid disturbance to nesting birds and by avoiding the use of heavy machinery farmer's will ensure that work does not cause any ground disturbance. When clearing scrub, stumps or roots must be cut level with the ground surface and any cuttings or

brash must be removed from the feature. Mature trees are not allowed to be removed without Forestry Commission approval and areas cannot be ploughed or re-seeded. Again, farmers must not tip, dump or burn any material on an archaeological feature (Natural England 2008).

Natural England promote grassland as the best agricultural management option for archaeological features with pastoral landscapes being more likely to conserve them for present and future generations. Option ED5 relates to the management of archaeological features on grassland and mirrors option ED2 in its prescribed management activities.

6.3.2 Higher Level Stewardship

By comparison, Higher Level Stewardship builds upon Entry Level Stewardship and is designed to contribute to one or more of the scheme's five primary objectives; conserve wildlife, maintain and enhance landscape quality and character, protect natural resources, protect the historic environment and promote public access and understanding of the countryside. However, this higher tier will normally only be suitable for land where environmental outcomes are likely to be greatest and, accordingly, Natural England has produced a set of targeting maps to increase the environmental benefits delivered through Higher Level Stewardship. In addition, a range of themes have been identified to encourage participation in the broader regions outside the target areas which allow farmers to enter into schemes, irrespective of geography, provided they are delivering management options that support these business themes. These are set out in table 6.1 below.

Theme five aims to address the risk to archaeological sites and historic parks in light of the damage that has already occurred as a result of agricultural policy as well as changes in technology and agricultural practice. It hopes to achieve this by considering applications that provide the most appropriate management methods in each case (Natural England 2009 www.naturalengland.org.uk). In contrast, theme seven concerns the damage and destruction of archaeological remains through ploughing activity and includes those features which may be below ground and therefore not visible. It is acknowledged that, whilst areas of unimproved permanent grazing land provide the best conditions for the long term preservation and visibility of archaeological features, a large numbers of sites do in fact

survive under cultivation and this measure aims to halt or minimise the effect of ploughing in such areas (Natural England 2009 www.naturalengland.org.uk).

Table 6.1: Natural England conservation, maintenance, protection and enhancement targets

Theme 1	Improving the resilience of nationally important habitats to climate change
Theme 2	Reversing the decline of farmland birds
Theme 3	Securing the recovery of nationally important species
Theme 4	Improving the quality of nationally important water bodies and/or habitats adversely affected by diffuse water pollution from agriculture
Theme 5	Reducing risk to nationally designated assets identified by the Heritage At Risk Survey
Theme 6	Securing positive management of prioritised historic buildings
Theme 7	Reducing the damage caused to undesignated below-ground archaeological sites by cultivation and protecting and enhancing visible undesignated historic environment features
Theme 8	Improving people's enjoyment and understanding of the farmed environment

Natural England 2009 (www.naturalengland.org.uk)

Traditional farm buildings are one of the most dominant features of the English countryside yet they form the single largest category of 'at risk' buildings on local authority risk registers. Modern farming practices have led to many changes with newer machinery often requiring larger buildings. Standards in animal welfare alongside hygiene requirements have also meant that many traditional farm buildings are no longer fit for purpose. Under HLS specific management options can be used to help address both the maintenance and restoration of non-domestic historical buildings (Natural England 2009 www.naturalengland.org.uk).

Higher Level Stewardship agreements normally last for a ten year period and must be underpinned by an Entry Level Stewardship agreement. In addition to management payments, Higher Level Stewardship, can contribute to the cost of a wide range of capital works in order to help farmers to deliver the environmental objectives on their land. In exceptional circumstances, special projects may additionally be funded. These include the conservation and restoration of historic buildings and the restoration or consolidation of archaeological features.

Further options are available under Higher Level Stewardship to protect archaeological features:

- **HD6 Crop establishment by direct drilling (non-rotational)**
- **HD7 Arable reversion by natural regeneration**
- **HD8 Maintaining high water levels to protect archaeology**
- **HD9 Maintenance of designed/engineered water bodies**
- **HD10 Maintenance of traditional water meadows**
- **HD11 Restoration of traditional water meadows**

Access to farmland is covered under options HN2-9 and complements the *Public Rights of Way* network by providing areas of open access and creating new footpaths, cycle paths and bridleways that are intended to enhance the public's enjoyment of the countryside and allow them to witness the environmental improvements being made through Environmental Stewardship. However, the scheme also acknowledges that such access may, on occasion, conflict with other Environmental Stewardship objectives and cause potential damage through the erosion of archaeological features or vulnerable habitats (DEFRA 2005).

Permissive open access is designed to enable public access to whole fields or other open areas to enjoy a viewpoint, historic feature or other feature of interest. Management under this option allows for the installation of site maps and way-marks, erecting any additional access furniture and maintaining all gates and stiles in good useable condition. The area must be kept safe for users, free from litter and exclude animals that are known to be, or are likely to be, dangerous. Educational access allows for between four and twenty-five visits per year by schools, colleges and a wide range of other interested groups (DEFRA 2005).

In a report by Kleijn and Sutherland, concerning the effectiveness of European agri-environmental schemes, it was acknowledged that there was a strong emphasis on wildlife conservation within UK agri-environmental policy (Kleijn & Sutherland 2003:951). Of the 98 page Natural England Environmental Stewardship document, only four pages relate to the management of archaeological features. This certainly supports Kleijn and Sutherland's views demonstrating a significant bias towards the importance placed on the natural heritage over the built heritage in this agri-environmental scheme.

Evidence of this marginalisation may be seen at Braunton Burrows in North Devon, where an area of farmland has just been brought under HLS. The farmland consists of approximately 700ha of rough grazing and sand dunes and is home to rare plant species resulting in its status as a Site of Special Scientific Interest (SSSI). This area forms part of the North Devon Biosphere which has further raised the profile of the site and bolstered its environmental interest. However, the site is also of archaeological interest. Nearby Braunton field is home to one of the largest surviving medieval apron field systems. In the 1970s, part of Braunton Burrows was excavated, revealing a fourteenth-century shell midden, including pottery sherds and mammal bones, indicative of settlement. Other archaeological sites have also been discovered and recorded by antiquarians, but due to the shifting nature of the sand dunes, they are no longer visible. They include a possible medieval village, crossing and chapel as well as buried peat believed to contain worked flint and possible Mesolithic or Neolithic footprints (interview Devon County Council April 2009).

The site is perhaps more famous for its role during the Second World War when the area acted as a decoy airfield before allied forces used it to prepare in readiness for the D Day landings of 6th June 1944. Over one hundred features remain and are now part of the overall Farm Environment Plan. Although these features have now been decommissioned, the area remains in use by the Ministry of Defence. Standing monuments include mock landing crafts (*Plate 6.7*) which, although not protected by scheduling, are of significant international importance.

Plate 6.7: Replica D-Day landing crafts at Braunton Burrows, Devon

It has been agreed that the area may be fenced (*plate 6.8*) into three sections to allow for stock control and concerns have been raised by the county archaeologist that any cattle in the area may rub against these upstanding monuments and impact upon their condition. Of further concern is the fact that specific areas of the site have been scraped by English Nature (*Plate 6.9*), without reference to the Historic Environment Record, in order to create suitable wildlife habitats for the rare Fen Orchid, Petalwort and Water Germander. The rapid growth of scrub and trees had smothered the internationally renowned flora at the site and had resulted in the drying out of the dune system. This in turn had caused the extinction of rare plants such as the Fen Orchid and resulted in a serious decline in others. Some of these areas are close to known archaeological sites and, for the present, these potentially damaging scrapings have ceased so that a 2010 Scraping and Slack Management Plan may be drawn up and allow archaeologists time to accurately map the extent and condition of these important archaeological features. It has been recommended that a watching brief be adopted so that continual monitoring may be undertaken in view of the importance of the site (interview Devon County Council April 2009).

Plate 6.8: Fencing off areas at Braunton Burrows, Devon, for stock control purposes

Plate 6.9: Scraping activity by English Nature at Braunton Burrows, Devon

In order to support farmers, who have archaeological features on their land, a number of *Farming the Historic Landscape* publications are available from English Heritage which specifically advise on caring for archaeological sites on grassland and arable land as well as providing information for farm advisors. However, it is important to acknowledge that the survival of archaeological monuments has been largely due to the positive attitudes of farmers down through the centuries. Attitudinal surveys show that the majority of farmers see no circumstances which would warrant the removal of archaeology on their land and, in embracing the history of local sites, are keen to share the history and heritage of their land (Heritage Council 2009a www.heritagecouncil.ie).

It is clear that, for many landowners, maintaining certain standards of environmental management is of the utmost importance as evidenced by those willing to maintain landscape features even when they could be profitably removed (Hodge 2001:102). At Ugborough, in the South Hams, Devon, private owners fully maintain a Norman ringwork castle situated upon their land. The castle has an unusually small bailey and occupies a low natural hillock in the bottom of a shallow valley running through one of their fields. A rampart and outer ditch are thought to be Anglo-Saxon in date and perhaps represent the

Domesday Manor of Langford. English Heritage scheduled the monument in 2001 and the owners have actively controlled scrub growth and retained the field in pasture by renting it to a local farmer for grazing sheep. The owners are clearly committed to maintaining the integrity of the site without recompense (interview Ugborough April 2009).

6.4 Distribution of monuments in England

The distribution of archaeological sites and monuments varies throughout England and *Figure 6.1* details the percentage allocation of monuments per county. The data for this map was provided by English Heritage in October 2008. One of the aims of this research was to highlight specific areas where archaeological features, situated upon farmland, may be at risk due to the marginalisation of the built heritage within current agri-environmental policy. By comparing data showing monument density, at a county level, with levels of participation rates in agri-environmental schemes within those counties it is possible to identify various levels of risk throughout the country. This has been repeated in the following chapter in respect of the Irish data sets. In England, *Figure 6. 1* reveals that, there are three specific areas of concern; Yorkshire, in the north, where the percentage allocation of monuments is the highest in the country, the far south west including Devon and Cornwall and the county of Wiltshire.

No county within England falls within the highest quartile of percentage allocation of farms under agri-environmental schemes (*Figure 6.2*). Indeed, Northumberland alone has participation rates within the third quartile with 57.42% of all farmers active under such schemes. This undoubtedly reflects the fact that agri-environmental schemes within England have been restrictive and have targeted farmers in specific areas. Many farmers still operate under the Countryside Stewardship Scheme which, like the higher tier of the current Environmental Stewardship Scheme has encouraged participation from farmers within specifically targeted zones. It is most probable that the restrictive nature of the scheme has resulted in lower participation rates when compared to the REPS in Ireland where the only restriction to application and acceptance was limited to farm size.

Half of all English counties have participation rates in agri-environmental schemes that fall within the lowest quartile. Due to time constraints, it has not been possible to assess land type and quality or farm size within these counties to ascertain whether this has been a

factor in such low rates of take up. Additionally, however, many of these counties also contain relatively low densities of archaeological monuments with figures rarely exceeding allocation rates of two percent. Only Herefordshire, Sussex, Hampshire, Derbyshire and Kent fall within the third category of monument allocation. Whilst low participation rates are a cause for concern, the majority of these counties would be considered of low risk because low levels of participation are matched by low levels of monument density. Cornwall is, however, the one exception within this quartile.

Cornwall has the fourth highest monument densities in England with 6.90% of monument allocation. Conversely it has one of the lowest rates of participation with only 23.66% of all farmers active within agri-environmental schemes. This county is closely followed by neighbouring Devon which reflects a similar pattern. Monument density within Devon is the second highest in the country with a percentage allocation of 9.07% yet less than one third of all farmers in the county participate in agri-environmental schemes. Earlier chapters have acknowledged the international importance of the archaeological resource in Devon and have discussed a number of projects that have been created to help farmers protect this valuable historical landscape.

The Wiltshire landscape is also a vast archaeological resource which contains 6.96% percent of England's total monuments and it is home to the renowned World Heritage Site of Stonehenge. Stonehenge itself sits on the undulating chalk of Salisbury Plain and the landscape surrounding it is rich in archaeology. Robin Hood's Ball causewayed enclosure and its associated long barrow lie to the north with the henge monument of Durrington Walls to the east. The Wilsford barrow group sits to the south but the site also contains dense earthwork scatters at Normanton Down, Lake Down, Woodhenge and Winterbourne Stoke Crossroads as well as the large Stonehenge cursus, lesser cursus and abundant settlements, fields and boundaries (Richards 1990:2). The concentration of monuments surrounding Stonehenge itself is remarkable in both composition and density and this level of prehistoric activity within the Wessex chalklands is paralleled only in the Avebury area (Richards 1990:1).

With 75% of the Stonehenge area having been under cultivation for several centuries, the landscape surrounding the site has suffered greatly from plough damage and other cultivation related activities. The downlands of Wiltshire occupy more than half of the county and this distinctive landscape remains the largest unbroken downland in England. The

particular character of these chalk downlands have given rise to unique farming patterns within the area (Bettey 2005:xii). The seventeenth century witnessed the introduction and rapid spread of water meadows across the downlands and by the end of the century they had become an established farming practice over much of the chalkland areas of Wiltshire, Hampshire and Dorset (Bettey 2005:236). The great antiquarian Aubrey mentions the creation of water meadows within the important ritual and ceremonial landscapes of the Kennet and at Salisbury (Bettey 2005:xxxiii). The large excavation of major channels and subsidiary trenches no doubt proved fatal to the archaeological record but the introduction of large numbers of rabbit warrens, a trade which proved lucrative on the thin chalkland soils of Cranborne Chase, would undoubtedly also have posed a significant threat. Some warrens had been introduced during the later Middle Ages but not on the scale seen during the seventeenth century (Bettey 2005:293). Rabbits can be particularly destructive and inadequate warren fences were not able to prevent their escape through burrowing (Bettey 2005:294).

Today, to the east of King Barrow Ridge, a high proportion of the round barrows now solely exist as ring ditches and the true morphology of both Woodhenge and Coneybury Hill can only be seen in aerial photography. The area has suffered from increased destruction largely due to clearance and arable cultivation with Wilsford Down and Winterbourne Stoke Down only relatively recently converted from grassland using the highly destructive method of soil-busting. Those sites which have not been deliberately levelled for cultivation survive as 'island' sites but are devoid of both context and associated features (Richards 1990:7). English heritage report that, in recent decades, a state of 'relative equilibrium' has been reached in the Stonehenge landscape. However, they acknowledge that this does not guarantee the immunity of features from future marginal plough erosion or burrowing animals (Richards 1990:282).

The Cranborne Chase chalk plateau lies adjacent to Salisbury Plain straddling the counties of Dorset, Hampshire and Wiltshire. The area is richly scattered with pre-historic earthworks and there is evidence of human activity as far back as the Palaeolithic period. Hambledon Hill is an outlying 'island' of chalk that encroaches in to the Blackmoor Vale in the extreme south-west corner of Cranborne Chase. The site consists of a large causewayed enclosure containing a large number of earthworks, including two long barrows, and an Iron Age

hillfort. During the early 1960s conversion of the downland pasture to arable, together with preparatory earth removal, resulted in considerable damage to much of the causewayed enclosure and completely destroyed the southern long barrow (Green 2000:50). With agri-environmental participation rates at only 29.32%, in an area recognised for its internationally important historic landscape, Wiltshire must fall within the highest risk category.

However, with by far the highest percentage allocation of monuments at 13.80% and yet exceptionally low rates of participation in agri-environmental schemes, with just 28.50% of farmers within either ESS, CSS or ESAs, Yorkshire is of extreme concern. East Yorkshire is noted for its extensive networks of linear earthwork boundaries and, significantly, many have now been damaged as a result of ploughing and survive only as soil marks on freshly ploughed land (Fleming 2008:15). Within Yorkshire, most of the linear earth works and ancient field systems have suffered as a result of cultivation making it necessary to reconstruct prehistoric boundary patterns using soil marks and crop marks visible only on aerial photographs (Fleming 2008:16). Rich in occupation sites, at Crayke in North Yorkshire, Hayes records that one farmer ploughed up large quantities of stone from a site which was later found to be rich in archaeology dating from pre-Roman to Medieval times (Hayes 1958:90).

The East Riding of Yorkshire came under enclosure at the end of the seventeenth century and has traditionally been an important farming area. Similarly rich in archaeology, excavations have revealed evidence of settlement and burial from early in prehistory. Numerous Beaker burials have been discovered at Staxton (Stead 1958:129) and an important Iron Age site revealed at Driffield (Philips 1958:183). The Yorkshire Wolds also present a rich ceremonial landscape with major collections of pre-historic barrows and graves. Many of the barrows have been deliberately re-opened during prehistoric times and used for later inhumations (Woodward 2000:23). The archaeology within this county is at considerable risk from non-participation within agri-environmental schemes making it the most ideal candidate for further study.

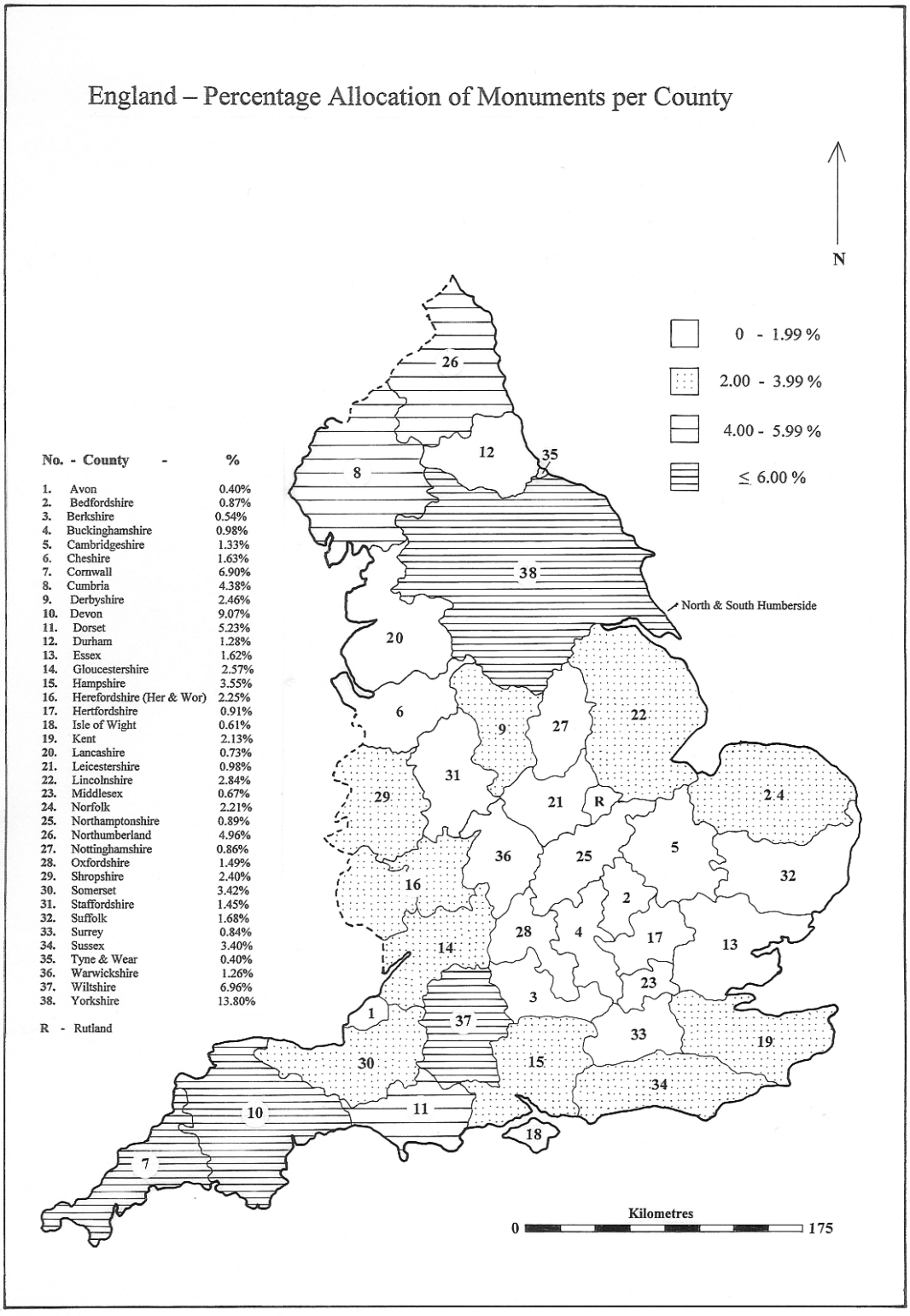
England – Percentage Allocation of Monuments per County
N
0 - 1.99 %
2.00 - 3.99 %
4.00 - 5.99 %
≤ 6.00 %
North & South Humberside
No. - County - %
1. Avon 0.40%
2. Bedfordshire 0.87%
3. Berkshire 0.54%
4. Buckinghamshire 0.98%
5. Cambridgeshire 1.33%
6. Cheshire 1.63%
7. Cornwall 6.90%
8. Cumbria 4.38%
9. Derbyshire 2.46%
10. Devon 9.07%
11. Dorset 5.23%
12. Durham 1.28%
13. Essex 1.62%
14. Gloucestershire 2.57%
15. Hampshire 3.55%
16. Herefordshire (Her & Wor) 2.25%
17. Hertfordshire 0.91%
18. Isle of Wight 0.61%
19. Kent 2.13%
20. Lancashire 0.73%
21. Leicestershire 0.98%
22. Lincolnshire 2.84%
23. Middlesex 0.67%
24. Norfolk 2.21%
25. Northamptonshire 0.89%
26. Northumberland 4.96%
27. Nottinghamshire 0.86%
28. Oxfordshire 1.49%
29. Shropshire 2.40%
30. Somerset 3.42%
31. Staffordshire 1.45%
32. Suffolk 1.68%
33. Surrey 0.84%
34. Sussex 3.40%
35. Tyne & Wear 0.40%
36. Warwickshire 1.26%
37. Wiltshire 6.96%
38. Yorkshire 13.80%
R - Rutland
Kilometres
0
175

Figure 6.1

County	Total Number of Farms	Total Number of Farms Under ESS ,CSS & ESAs	Farms Under agri-environment schemes as a % Total Number of Farms
Northumberland	3067	1761	57.42%
Cumbria	8617	3572	41.45%
Norfolk	6889	2636	38.26%
Suffolk	5128	1866	36.39%
Oxfordshire	3025	1071	35.40%
Shropshire	7368	2407	32.67%
Northamptonshire	3173	1012	31.89%
Somerset	9405	2934	31.20%
Durham	3588	1091	30.41%
Cambridgeshire	3535	1069	30.24%
Devon	16861	5062	30.02%
Wiltshire	4536	1330	29.32%
Yorkshire	22458	6401	28.50%
Leicestershire	4058	1129	27.82%
Nottinghamshire	2712	745	27.47%
Gloucestershire	5275	1410	26.73%
Dorset	4517	1183	26.19%
Bedfordshire	1509	381	25.25%
Lincolnshire	8086	2040	25.23%
Tyne & Wear	317	77	24.29%
Buckinghamshire	2712	656	24.19%
Essex	4462	1073	24.05%
Cornwall	9492	2246	23.66%
Warwickshire	3730	868	23.27%
Staffordshire	6706	1540	22.96%
Hertfordshire	1651	369	22.35%
Herefordshire (Her & Wor)	9415	2102	22.33%
Isle of Wight	743	164	22.07%
Berkshire	1207	259	21.46%
Sussex	6534	1349	20.65%
Avon	3222	651	20.20%
Cheshire	8275	1670	20.18%
Hampshire	4880	903	18.50%
Derbyshire	5602	1012	18.06%
Lancashire	7192	1240	17.24%
Kent	6024	1032	17.13%
Middlesex	564	81	14.36%
Surrey	2409	293	12.16%
Totals	208944	56685	

Figure 6.2

THE ARCHAEOLOGICAL HERITAGE OF IRELAND

'The archaeological aspect of heritage is a vital ingredient in the combined characteristics which give our landscape its distinctive appearance'

Cooney et al, 2000

This chapter looks at Ireland's archaeological heritage and the risks that modern day agriculture poses to that heritage. As in the previous chapter, it assesses land use types in order to ascertain the level of threat posed by different agricultural regimes to the historic environment and identifies how agri-environmental schemes are attempting to address those threats. By similarly comparing monument density with the take up of agri-environmental schemes, on an individual county basis, varying levels of risk can be identified so that future research may target specific key areas. Marginal differences in the compilation of this chapter reflect additional field work undertaken for previous research projects, the previous chapter being more heavily reliant upon desk work.

7.1 The background

In Ireland all archaeological monuments are protected under the 1930 National Monuments Act which prohibits any ground disturbance within, around or in proximity to an archaeological monument (O'Sullivan 1998:89). The National Monuments Service, which is part of the Department of the Environment, Heritage and Local Government, keeps a record of all known sites and monuments and plays a key role in the protection of Ireland's archaeological heritage. The Heritage Council, a statutory independent body appointed by The Department of Community, Rural and Gaeltacht Affairs aims to protect and enhance the richness, quality and diversity of Ireland's national heritage through partnership activities. In an attempt to raise heritage awareness the Heritage Council works with a number of stakeholders, especially at a local level (Heritage Council 2009 www.heritagecouncil.ie).

The Heritage Council, in turn, funds the Discovery Programme which is an archaeological research company that carries out a wide range of integrated archaeological projects (Department of Arts, Heritage, Gaeltacht and the Islands 1999:15). Current research titles include Lake Settlement, Barrow Valley, Hill of Tara and Western Stone Forts, the majority of which are located along the western seaboard and are particularly numerous in counties Galway and Clare. Additionally, large scale research under the Medieval Rural Settlement

Project commenced in 2002 with the bulk of the resources devoted to the study of the O'Conor lordship in county Roscommon (Discovery Programme 2009 www.discoveryprogramme.ie). Evidence presented by Brian Shanahan shows that two medieval settlements, situated within the lordship, have been destroyed entirely by agricultural activity. These sites were clearly visible from older Ordinance Survey maps but can no longer be identified through aerial photography (Shanahan 2009 conference).

The Archaeological Features at Risk Project, undertaken in seven study areas in Ireland in 1998, indicated that at least 34% of the monuments studied had been destroyed in the two decades leading up to the study although, over 100 of the monuments could not be located at all indicating that the rate of destruction was most probably higher. More worryingly, figures suggest that the rate of destruction in the Republic of Ireland has not slowed but had 'accelerated at an alarming rate' (Heritage Council 2008 www.heritagecouncil.ie).

O'Sullivan provides statistical proof that archaeological sites have been 'disappearing from the landscape at a significant rate in recent decades' from his research in the south of county Meath. His study confirms that farming practices have played a major role in their destruction (O'Sullivan 1998:91). He argues that the effectiveness of recent protective initiatives remains unexplored and that virtually no information exists concerning the attitudes of farmers towards issues of preservation or destruction which he believes are influenced significantly by the farmer's age and the size of his holding (O'Sullivan 1998:88).

It estimated that between 30-60% of Ireland's monuments have been removed since the mid nineteenth century with their destruction being particularly noticeable in the last four decades (Cooney et al 2000:19). In addition to archaeological techniques, such as aerial photography, landscape archaeology and geophysics, old maps play a vital role in the history of the removal of archaeological features. Archaeologists in Ireland have derived great benefit from existing Ordinance Survey maps prepared during the nineteenth century. Although archaeological monuments and other antiquities were recorded on some earlier pre-Ordinance Survey maps, these new maps recorded them more systematically and in greater numbers (Smith 1998:74). The staff of the Ordinance Survey employed local people in order to embrace their knowledge of the landscape and additional archaeological and historical information was recorded in memoirs accompanying the maps themselves (Smith 1999:154).

There is a long history of both mapping and antiquarian research in Ireland and they were closely interconnected throughout the nineteenth century. The establishment of the Royal Irish Academy in 1782 reflected a growing interest in the study of Ireland's past and reflected the increasing institutionalisation of antiquarian research. The work of Ordnance Survey Irish scholars ushered in a 'new age' in Irish antiquarianism, and archaeology gained a new impetus as a result of their work. The number of interested scholars grew to such proportions that, in 1863 when the entire country was resurveyed, the Ordnance Survey was able to call upon this large new pool of archaeological talent (Smith 1998:79). Archaeologists today look to this valuable resource to assist with their own research and, whilst gaps do occur in the information contained on the OS 6" maps, they provide reasonable baseline data from which to assess the removal and deterioration of archaeological features (Sullivan 2004:66).

Research in the Burren, in county Clare, features significantly in this thesis and Gosling (1991) believes that there is a 'convincing case' to be argued that virtually all modern archaeological research and fieldwork within the Burren landscape stems from a series of footnotes to the work undertaken by the antiquarian Thomas Westropp. Westropp became a member of the Royal Society of Antiquities in 1866, subsequently rising to the position of Fellow and then President in 1916. Whilst his work was not solely confined to the Burren landscape, Westropp almost singlehandedly laid the foundations which helped to transform the work of antiquarians within the Burren into a science. Indeed, the wealth of detailed information that he left has proved indispensible for subsequent archaeologists (Gosling 1991:92).

As far as the destruction of the archaeological record is concerned, earthen monuments such as ring forts and fuluchta fiadh, are considered to be at greatest risk. This is because the majority of these monuments are situated in pastureland which is subject to land improvements associated with more intensive farming regimes, although standing stones are also vulnerable. In Westport, in county Mayo, an interview with farmer Seamus revealed that, expansion by a neighbouring farmer had resulted in the partial destruction of a known ring fort on land adjacent to his own farm. The ring fort, which was marked on one of the earliest ordinance survey maps, is linked by souterains to Dún Castle. In order to accommodate the expansion it had been necessary for the road that ran along the edge of

the ringfort to be widened using mechanical diggers. This resulted in the partial destruction of the edge of the monument very close to one of the known entrances (interview 1/5/09).

The chief cause of destruction or damage through land improvements appears to be the removal of banks and ditches (Heritage Council 2008 www.heritagecouncil.ie). Traditional farming practices meant that many boundaries were originally located in such a way as to avoid interference from obstacles such as barrows or banks which then became positioned on that boundary itself, often resulting in strange alignments or kinks. The features were therefore protected from plough damage. Intensification in recent decades has resulted in the removal of many field boundaries and hedges leaving sites open to destruction from larger and more powerful machinery and, where sites become situated as islands of uncultivated ground within an arable field, encroachment of the plough has also become an issue (Darvill 1987:128).

Specific research, undertaken by Bennett, concerning ring forts in county Wexford demonstrates that destruction of these sites has occurred in all areas where land is subject to modern farming (Bennett 1989:53). Ring forts are the most common field monument found in Ireland and there are well over 400 ring forts in county Wexford alone (Bennett 1989:50). By studying maps, aerial photographs and undertaking fieldwork, Bennett was able to demonstrate that 72% of known sites had been levelled by 1981 (Bennett 1989:53). Past communities who built ring forts were aware of the land potential of the areas in which they settled and chose areas where the soils were more fertile, easier to till or presented the best pasture areas. It is no co-incidence, therefore, that the well drained lands they chose are areas which are still held to be the richest in the county today (Bennett 1989:60). Elsewhere, researchers have similarly noted high rates of destruction. Buckley (1986) reports rates of destruction in Louth being 37%, with Stout (1984 quoted in Herity 1987) and Cuppage (1986) reporting rates of 37% in Tipperary and 31% in the Dingle Peninsula respectively.

Further research, undertaken by Herity (1987) in Roscommon, reveals that 11% of ring forts in the area have been destroyed and that agricultural activity has been responsible for removing any surface traces of these monuments which were visible on earlier aerial photographs. He attributes this lower rate of attrition in Roscommon to the fact that farm land is predominantly used for grazing rather than arable farming but, additionally, to the mythical associations of such sites (Herity 1987:125). In Ireland, there is much folklore

concerning ring forts, otherwise known as fairy forts, and such superstition remains particularly strong in the west. Seamus, an elderly REPS farmer in Westport, county Mayo, clearly remembers the fairytales he was told as a child to prevent him from going into the tunnels under a ring fort on the family farm. The farm has been in his family for many decades and subsequent generations have refused to cut the trees on the fort because it was believed to be bad luck and that their cattle would die if they did so. Folklore and superstitious belief in monuments lives on today and Seamus is currently fighting plans, by the local council, to cut through a Bivallate Rath on his own land in order to build a new road which he believes is a 'wicked thing to do and very bad luck'. He is exceptionally protective of the archaeology on his land which additionally comprises medieval ditches and the remains of a pre-famine village and mill (interview 1/5/09).

Characterised as superstition by modern society, folklore has governed relationships with the land down through the centuries in Ireland. The traditions of 'fairy paths' and the 'lone bush' or 'fairy thorn' have prevented the destruction of local features such as ring forts or hawthorn bushes for many generations (Duffy 2007:65). It is possible that much of this superstition has evolved from the fact that some forts were used as sites for the burial of un-baptised children. Often situated close to the site of an old church these spaces would be considered as sacred. Seamus told of a fort on the road to Cashel where his grandmother laid two of her still born children to rest and John recalled his father talking of the people who went down through the fields at night with lanterns and up Cnoc na Croise (the Hill of the Cross) to the ringfort. His father told him he used to meet people he knew on the way home from house dances but that they never acknowledged one another. John believed their silence was due to the fact that they were on their way to the ringfort to dispose of their infants in the hours of darkness. The ringfort was on the boundary of three villages and he understood that all the un-baptised infants from the various villages were buried there (interview 1/5/09).

As previously stated, land in Ireland is universally owned by the family with land transfer restricted almost totally within the kinship network. The main disadvantage of this system has been the concentration of ownership in the hands of an elderly population in recent times. The most extreme example of this problem is found in the marginal farming areas of the west where farm size is generally small and land quality poor (Grimes 1988:33). It is

precisely this cohort of farmers who have grown up with the folklore and superstitions surrounding sites and monuments that are most likely to respect and protect the features upon their land. This is supported by O'Sullivan's research (1998) which demonstrates that a positive attitude towards the preservation of archaeological features increases with age and is highest on smaller farms. There is a high concentration of archaeological features in the west of Ireland and research would therefore seem to indicate that an important part of Ireland's heritage is already in the hands of those best suited for its preservation.

Indeed, when John, in county Mayo, was no longer able to make an agricultural living from the farm that his family had inhabited for over 200 years, he converted his small holding into a heritage centre in order to provide a showcase for the history and people of the west of Ireland (interview 28/04/09). Tours were provided for almost 6000 visitors in 2008, demonstrating the demand for such enterprises and reflecting the passion of the owner who is committed to sharing his knowledge and experience of traditional farm life so that the heritage of the area may be disseminated to future generations (*Plate 7.1*).

Plate 7.1: Heritage Farm, Foxford, county Mayo

Intensification of commercial farming, especially in the more productive agricultural areas of Munster and south Leinster has greatly increased the pressures on archaeology as a result of land improvement and the unrecorded removal of earthen banks, ditches and field boundaries (UCD 2006:18). Hedges and other boundaries provided a barrier to the movement of soil, down slope, thus providing a greater depth of soil to preserve monuments on their upward sloping side and their removal therefore negates this benefit (Darvill 1987:128). Such activities are occurring throughout the country and John spoke of a farmer near Castlebar, in county Mayo, who had bulldozed a site containing three standing stones in order to increase his field size. Bones discovered at the site were radiocarbon dated to around 2500BC making this an important transitional site on the boundaries of the Neolithic and Bronze Age (interview1/5/09).

The impact of agricultural intensification has been well documented however, the polarisation between commercially viable full-time farmers and the subsidy-dependent small farmers, is one of the clearest trends in the Irish countryside today. The Agri Vision 2015 committee believes that the number of farms in Ireland is likely to continue to decline so that by 2015 of the 105,000 that will remain active in Ireland, 45,000 will no longer be viable (Agri Vision Report 2004:5) It is also anticipated that farming will continue to decline in the more remote and marginal areas. These same areas are the main repositories of Ireland's natural and cultural heritage and such decline can only diminish the heritage value and character of the Irish rural landscape (Dunford 2007:19). It is likely that large parts of the rural landscape, in Ireland, will be remodelled as a result of the increasing spatial differentiation in agriculture and long-standing familial associations with archaeological features will be eroded significantly (UCD 2006:20).

Ireland's Agri Vision 2015 committee acknowledges that the maintenance of the country's cultural heritage has become an increasingly prominent issue (Agri Vision Report 2004:27) and the public do place a high value on the visual quality of the rural landscape (Campbell 2006:15).

7.2 Policy

When the 1994 National Monuments legislation was introduced in the Republic, it was the strongest and most serious piece of heritage legislation passed by the Irish government

(Archaeology Ireland 1995:32) and was heralded, by *Current Archaeology*, as 'the most draconian antiquities legislation in the world' (Current Archaeology 1995, 141, 341). As O'Sullivan (1998) points out, this sudden pre-occupation with legal and other initiatives has occurred within the context of an enhanced popular appreciation of the archaeological heritage (O'Sullivan 1998:90). However, as the Archaeological Features at Risk Project shows, rates of destruction of archaeological monuments actually increased post-legislation, indicating that this 'draconian' legislation has failed in its objective to protect Ireland's heritage from continued damage and destruction. Agricultural activity is the most common agent responsible for the destruction and degradation of archaeological sites and monuments but, the introduction of measure seven within REPS has begun to address this issue. However, the fact still remains that, those currently participating in REPS represent the agricultural sector least likely to threaten the archaeological record (Heritage Council 2008 www.heritagecouncil.ie).

In Ireland, archaeological monuments are protected under the National Monuments Acts 1930-2004 and it is a legal requirement that any monuments discovered are reported to the National Monuments Service (Rural Resource Development Ltd 2008:19). Yet, Seamus revealed, many farmers do not declare monuments on their farmland because it may jeopardise the future potential of the land should they wish to utilise it for purposes other than farming (interview 1/5/09). The agri-environmental approach, as delivered through REPS, has been heavily criticised for being too narrowly focussed on the support of farm incomes with little regard for the needs of heritage conservation (Dunford 2007:20). Dunford (2007) believes that the process of designation in Ireland has only succeeded in driving a wedge between people and their heritage, and the sense of pride, ownership and responsibility needed to protect it (Dunford 2007:20).

7.3 Pilot Field Monument Advisor Scheme

The Heritage Council is working in partnership with Local Government and the farming community to provide advice to farmers on the management of archaeological monuments on privately owned land through the pilot Field Monument Advisor Scheme. Farmers are the day-to-day managers of the landscape as well as the private landowners of the majority of archaeological sites throughout Ireland. The Heritage Council, in partnership with various County Councils, including Galway in the west of Ireland, has initiated the pilot Field

Monument Advisor Scheme in an attempt to preserve the archaeological monuments that are situated upon privately owned farmland. The objective of each advisor programme is to support landowners in the care of monuments in their ownership by helping them through the provision of information and by contributing to farmer training programmes. Information provided by Field Monument Advisors includes how to care for archaeological sites in farmland as well as details on the type and known date of particular sites. Farm visits are spent working through management issues in respect of the archaeology on the farm in the hope that, through the farmer's interest and enthusiasm, ways to care for archaeological sites can be identified as part of day to day farming activities (Heritage Council 2009a www.heritagecouncil.ie).

It is interesting to compare the counties participating in the advisory scheme to the Irish maps showing density of monuments and uptake of REPS (*Figure 7.1 and 7.2*). The Heritage Council is currently working in partnership with county councils in Sligo, Clare, Meath, Louth, Wicklow and Galway. *Figure 7.1* shows that, of the counties at greatest risk in terms of monument density, namely Cork, Kerry, Galway, Mayo, Tipperary and Limerick, only county Galway is currently included in the pilot Field Monument Advisor Scheme. It is also clear, from the percentage spread of REPS farmers that participation rates in agri-environmnetal schemes does not appear to have been a factor in selecting partnership counties. As *figure 7.2* demonstrates, the percentage allocation of farmers within REPS ranges from as low as 23%, in county Louth, to as high as 49% in county Galway. If the issues surrounding the built heritage are to be addressed through REPS then these figures seem to somewhat undermine belief in the scheme. If stakeholders truly believed that REPS was the way forward, then surely the pilot Field Monument Advisor Scheme would have been eager to target areas where monument density was high but uptake of REPS was low and this simply does not appear to be the case. It would seem that counties Cork and Roscommon would be more appropriate areas for management through the Field Monumnet Advisor Scheme with high densities of monuments but, in comparison, relatively low participation in agri-environmnetal schemes.

Rathcroghan, in county Roscommon features in early literature as a major royal settlement and demonstrates clear parallels with Navan and Tara. Known as the royal seat of Queen Maeve it is also the place where the Táin Bó Cúailgne, the Great cattle Raid of Cooley, was

initiated. Today the site lies to the north-west of the village of Tulsk and consists of a central mound within a complex of earthworks and other monuments scattered across a broad elevated plateau with commanding views over part of the rolling pasture land of Mag nAí, the plain of the sheep (Waddell 2000: 347-353). The site's agricultural setting would appear to make it a priority area for inclusion within such a Scheme.

It is possible that the pilot Field Monument Advisor Scheme may offer a better way forward, in terms of policy, for the preservation of Ireland's rich and valued archaeological heritage. Farmers know their land intimately and are in the best position to advise others about features upon their land, many of which do not appear on any existing maps. One academic interviewed believes that farmers are much more positive about archaeology than they are about natural heritage because they can connect with the human aspect of that heritage which was built by their ancestors. He believes that the information sharing exercise which takes place between the farmer and the archaeologist and results in a thorough audit of the archaeological heritage and management recommendations is of the utmost importance. By taking existing farm management practices into consideration he proposes that it is the only way to ultimately succeed in protecting the archaeological heritage found on farmland (interview 30/4/09). However, the scheme will only be effective if the correct areas are targetted and this does not appear to be the case at present.

7.4 Different land uses and their effects on the archaeological record

7.4.1 Established Grassland

In contrast to England, established grassland remains the dominant land use within the Republic of Ireland (Heritage Council 2008 www.heritagecouncil.ie) and was traditionally used for grazing sheep, cattle and horses or for the production of hay. Established grassland is the best landscape environment for the preservation of archaeological remains yet, in Ireland, it is increasingly threatened by sub-soiling and drainage. It is also at risk from overgrazing which has been of significant concern in the past. In the 1980s the introduction of Headage Payments, by the EU, led to an almost three fold increase in sheep numbers nationally in Ireland. The scheme was designed to assist those farming in more 'disadvantaged' peatland areas but resulted in devastation as stocking pressures caused a

deterioration in vegetation in the hills, especially in areas such as Mayo and Galway where one quarter of Ireland's ten million sheep were located.

Yet, conversely, it is the more recent threats posed by the potential withdrawal of agriculture, in more marginal areas, that is causing concern within the Republic today. As previously discussed, the potential for the withdrawal of agriculture from more marginal areas is high. Without appropriate management prescriptions scrub regeneration will occur (*Plate 7.2*) and natural succession will mean that areas which were once cultivated will become heavy with vegetation and woodland. There is evidence within the Burren that many monuments are affected by the growth of young saplings. Archaeological monuments provide the requisite shelter and draining that such young plants require and therefore create an ideal habitat for the establishment of tree growth. Once a sapling is established on a monument that monument is immediately at risk of long-term damage (The Heritage Council 2006:58). Tree growth is highly damaging to archaeological monuments and upstanding structures are especially vulnerable, with the forces of expanding tree growth bearing against walls. Megalithic tombs are a little more resilient to this because of the large nature of the stones used in construction but well established trees will eventually displace orthostats and directly, or indirectly, undermine the stability of any surviving capstones. Any surviving cairn materials, would certainly be disturbed by growth (The Heritage Council 2006:52).

Plate 7.2: Scrub growth beginning to impact Sraith Bhuí nó Altóir, county Mayo

However, conversely, the removal of scrub can itself threaten archaeological monuments if prescribed methods are not followed. In areas of the Burren, farmers have found it necessary to clear areas of scrub to create access routes that facilitate stock management and access to land. It would appear that this is being undertaken without reference to the archaeological record and is therefore potentially damaging to both recorded and unrecorded monuments in the area (The Heritage Council 2006:54).

A report prepared for the Heritage Council, in Ireland, concerning scrub growth in the Noughaval area of the Burren revealed the amount of damage that can be caused to archaeological monuments if scrub growth is not managed. The area was chosen due to the prevalence of archaeological monuments and the known growth of hazel, and research shows that the rate of expansion of scrub growth is predominantly dictated by levels of grazing practised (The Heritage Council 2006:57). The effects caused by the growth of hazel scrub included structural damage, sub-surface drainage and a loss of visibility and access. Research showed that scrub growth had directly impacted 71% of the recorded monuments within the Noughaval area (The Heritage Council 2006:3). New farming practices associated with the system of decoupling, together with an increase in the number of farmers leaving the land to pursue other employment, mean that reduced levels of grazing are likely to continue, or even increase, within the Burren placing this valuable landscape in jeopardy once again (The Heritage Council 2006:58).

7.4.2 Arable land

Arable landscapes have been a feature of Irish landscape since the Neolithic period, in Ireland, near the site of the Céide Fields in county Mayo, the earliest evidence of arable cultivation is demonstrated through a series of ard-plough marks at Belderg Beg (Caulfield 1978:140). A full spectrum of archaeological sites and monuments may be found within the arable landscape with ritual and ceremonial monuments, as well as fortified sites, particularly numerous in Ireland. Of the 45,000 ringforts identified throughout the Irish landscape, 28,000 are much denuded and can now only be indentified as crop marks on aerial photographs or through cartographic sources (Stout & Stout 1997:44).

The risks posed by modern cultivation have already been fully covered in the previous chapter but they are as relevant to Ireland as they are to England. The Discovery Programme

is currently carrying out research at a farm under arable cultivation in Castlemore, county Carlow. Whilst a Motte and Bailey castle exist at one end of the site, and a church at the other, little was known about the surrounding landscape. Ploughing under arable cultivation has revealed pottery fragments in one particular field and subsequent field walking (*Plate 7.3*) has revealed a very distinct linear concentration of artefacts. The area has since been mapped, using geophysics, which has revealed a deserted medieval village between the motte and bailey castle and the church. The distinct pattern of artefacts is indicative of a medieval street associated with the village. Geophysics has also revealed other lanes and agricultural field systems as well as possible pre-historic features which require further investigation. Although there may not be much evidence visible on the farmland a lot of archaeology remains hidden and may, therefore, be lost through potentially damaging agricultural activities. Fortunately there is no active threat to the archaeology at this particular site as the farmer knows his land well and embraces the opportunity to learn more about the site through Discovery Programme research (Brady & Murphy 2009 Conference).

Plate 7.3: Discovery Programme's archaeologists field walking at Castlemore, county Carlow

As in England the destruction of archaeological features through cultivation methods is not a modern day phenomenon and research, undertaken by Brady at Castlemore in county Carlow, reveals that the development of the medieval landscape was in fact responsible for the destruction of much archaeology including a rath and possibly a ringfort (Brady & Murphy Conference 2009).

7.4.3 Bog land

Bogs are among the most characteristic landscape features in Ireland covering 1.34 million hectares or one sixth of the country's total land area. With the exception of Finland, Ireland has the largest area of bog land in Europe and such landscapes have become increasingly important as international sites of scientific, cultural and aesthetic value (Aalen 1997:106). Indeed, many sites are increasingly regarded as an important recreational and tourism resource (Tomlinson 1997:117). The term 'heath' is little used in Ireland and the blanket bogs and raised bogs of the Irish landscape find their equivalent in the lowland and upland heaths of England.

The extent and type of bog land varies greatly but Ireland possesses 8% of the world's blanket bogs with major concentrations in the west of Ireland (UCD 2009 www.ucd.ie/bogland). Here, human activities were especially influential in the growth of lowland blanket bog where peat development was encouraged by the presence of acidic rocks. As is demonstrated at the Céide Fields in county Mayo, many western bogs developed on soils previously used by Neolithic farmers (Tomlinson 1997:117).

Like England, much of the peat in bog land areas has been cut for fuel (*Plate 7.4*) but substantial areas have been drained and reclaimed for use in both arable and grassland farming in Ireland (Doyle & Ó Críodáin 2003:79). Agriculture became increasingly intensified from the 1950s onwards in Ireland supported by initiatives such as the Land Rehabilitation Project and the Farm Modernisation Scheme. In the wake of entry into the European Economic Community in 1973 the situation deteriorated rapidly with the adoption of the CAP. Additionally, in recent years, erosion resulting from intensified grazing and burning has been a significant problem (Tomlinson 1997:121). The introduction of headage payments led to huge increases in sheep numbers across the country but especially in the west. The resulting depletion in vegetation led to the exposure of bare peat surfaces and the

subsequent erosion of peat to the underlying mineral soil in some areas. This in turn resulted in the acidification of lakes and the siltation of salmon spawning grounds (UCD 2009 www.ucd.ie/bogland). Special protocols for the sustainable management of peatland have now been introduced, in conjunction with Teagasc to devise appropriate grazing regimes, particularly in the west (UCD 2009 www.ucd.ie/bogland).

Plate 7.4: Peat cut for fuel at Foxford, county Mayo

The key climatic and environmental indicators preserved within bogs are of great value to archaeologists but it is perhaps the bodies that have lay within the bogs for centuries that have captured the imagination most. Many bog bodies have been discovered in Ireland and whilst many relate to the medieval or early modern period some are dated much earlier. Bog bodies discovered in county Galway from Stoneyisland bog and Gallagh, Castleblakeney have been dated to the Neolithic and Iron Age respectively. Enormous quantities of almost perfectly preserved items of wood, textiles and leather are found in bogs meaning that these sites are of incalculable importance. The anaerobic conditions provided by the waterlogged recesses of the peat provide archaeologists with a dimension of understanding well beyond the capabilities of research in dryland sites (Raftery 2003:202-209).

By analysing pollen stored in lowland raised bogs and blanket bogs, Plunkett (2009) has been able to place periods of metal work production during the Irish Bronze Age within an international context; an immense stretch of blanket bog at Owenduff in county Mayo proving crucial to her research (Plunkett 2009:275). Evidence from a peat bog, located near Mount Gabriel, in county Cork, has enabled Mighall et al to provide rare evidence of human activity in the south-west of Ireland dating to the Mesolithic period (Mighall et al 2008:617). Additionally, research by Hall (2005), using peat profiles from a variety of bogs in the midlands at Mongan, Clonfert, Clonenagh and Derryville, has enabled a contrast in land use changes between contemporary monastic and secular sites during the last two millennia (Hall 2005:1).

Many archaeological features are found in wetland areas and maintaining high water levels in these areas will help to protect them. Ireland, in particular, is rich in peat bogs which have yielded several important archaeological sites such as the Céide Fields in county Mayo. Archaeological sites such as *crannógs* (crannogs) and *toghers* (track ways) have also been discovered during peat cutting or drainage operations (McDermott 1998:189). Palynology (pollen analysis) has the potential to advance our knowledge of the environmental history of a given site. Evidence from a peat body at Lios Lairthín Mór revealed numerous changes in the Burren landscape from 3200BP through to the present day emphasising the fact that arable farming had already assumed some importance there during the early Christian period (Jeličić & O'Connell 1992: 138).

The widespread afforestation of peatlands has also taken place in recent times, especially upon areas of blanket bog. Forestry plantation involves the intensive manipulation of the peatland habitat because effective tree growth requires the land to be drained. In order to achieve this, surface drains are installed which have the potential to destroy the integrity of the archaeological record at any given site (Doyle & Ó Críodáin 2003:79).

7.5 The Rural Environmental Protection Scheme

Ireland's REPS is the most broadly based of European agri-environmental schemes. Unlike the HLS, within England's Environmental Stewardship Scheme, it is available universally throughout the Republic of Ireland. The REPS is a voluntary scheme that has been open, nationally, to all landowners who farm in excess of 3ha and is not restricted to specific areas

within the country. REPS not only benefits farmers financially, but also offers a range of benefits to society, as a whole, through the enhancement of the rural landscape and the provision of recreational amenities, improved water quality, the preservation of wildlife and the maintenance of historical and archaeological features (Campbell et al 2006:3).

However, research undertaken by Hynes et al (2008) reveals that not all types of land are necessarily given equal protection under agri-environmental schemes in Ireland. Their study of REPS demonstrates that bog land, rocky complexes, forestry and shallow water habitats are more likely to receive protection under the scheme. In contrast, heath, dry grassland, built land and fen are habitats likely to receive the least amount of protection. Translating this into concerns about archaeological conservation and preservation, it would seem that not all sites and monuments are likely to receive the same level of protection under REPS in Ireland and may receive levels of protection based solely on the type of land upon which they are situated.

7.5.1 REPS 4

The Rural Environmental Protection Scheme was introduced in Ireland in 1994 and has been revised a number of times, with each subsequent scheme increasingly emphasising pro-active measures through which farmers have protected and improved the environment. REPS 4 was the first phase of REPS introduced subsequent to the 2005 CAP reforms but the scheme has now been closed to new applications. Whilst existing participation will continue to expiry the scheme's withdrawal has resulted in a great deal of concern and speculation over the future viability of farming in the Republic of Ireland and its subsequent impacts on the country's heritage.

The objective of Measure 7, under REPS, is to 'provide biodiversity buffer strips around features of historical and archaeological interest which will contribute to the conservation of these sites' (REPS 2008:24). The scheme acknowledges that the landscape of Ireland contains an important record of Irish history, through its rich heritage of historical and archaeological features, and that all sites, recorded on the *Register of Monuments & Places*, must be protected, even where not visible. In order to ensure the success of this objective a farmer or landowner must adhere to certain guidelines. All monuments and archaeological features identified in the REPS plan must be retained and, if the feature requires protection, only light

temporary fencing (*Plate 7.5*) or marker posts may be used. In grassland a buffer strip of 20m must be established around any features and, in tillage fields, an uncultivated and unsown margin of 5 metres must be maintained. Activities such as ground disturbance, excavation, building, afforestation or storage are not permitted within these buffer strips. The continuous movement of animals over earthwork features, together with the overwintering of animals, is prohibited in these areas and no damage is allowed to monuments through the use of heavy machinery within their vicinity. Finally, materials of any type must not be burnt or dumped on archaeological sites. Planners may also include any further works they deem necessary within the plan to which the farmer must adhere (DAFF 2008).

Plate 7.5: Active management and temporary fencing Glebe stone circle, Cong, county Mayo

A series of optional supplementary measures accompany the set requirements of REPS. Supplementary measure 12, *Traditional Farm Buildings*, aims to preserve the many traditional farm buildings that exist throughout the Irish countryside. Many of these traditional buildings have been neglected because they are no longer fit for purpose. Many are too small to house the larger machines used in agriculture today or lie in remote areas that are difficult to access. Whilst many remain in a poor state of repair they are important wildlife habitats and part of the farming heritage. A farmer must apply directly to the

Heritage Council for a grant equalling no more than 75% of the cost of works up to a maximum of €25,000. This means that the farmer will have to subsidise 25% of the cost of any project and many farmers, especially those with low incomes, simply may not be able to find the necessary funds. Additionally, the success of all applications is not guaranteed as the Heritage Council will only select the most appropriate projects each year (DAFF 2008:45). Therefore, the future of many traditional farm buildings cannot be assured, throwing an important part of Ireland's rich farming heritage into jeopardy along with countless habitats and ecosystems.

The REPS 4 Farmer's Handbook consists of 80 pages yet, references to the protection of historical and archaeological features, appear on only three pages of this comprehensive document, thus highlighting the marginalisation of the built heritage. This situation is mirrored in England under Environmental Stewardship. Some measures under REPS, relating to the built heritage, also serve to protect important wildlife habitats and ecosystems. Option 7A, for example, highlights the fact that an increased buffer margin will not only increase the protection of archaeological features but will also 'enhance biodiversity'. Therefore, measures aimed at preserving and managing the built heritage have a dual purpose protecting the natural environment.

A REPS planner is required, by the Department of Agriculture, Fisheries and Food, to have appropriate professional qualifications and to have completed a training process determined by the Department. In order to act as a REPS planner the individual must posses qualifications of an accepted agricultural standard such as a university degree in general agricultural science. Agricultural degrees in Animal & Crop Production, Agri-business & Rural Development, Engineering Technology, Food and Agri-business Management, Animal Science, Agricultural & Environmental Science, Commercial Horticulture and Applied Environmental Science are all acceptable. However, relevant subjects relating to archaeology are viewed only as *desirable and n*ewly approved REPS planners must gain the relevant knowledge for the role by attending a training course which is organised by DAFF (DAFF Circular 08/07).

Research undertaken by Sullivan (2004) indicates that, only half of the Teagasc REPS planners and private REPS planners he interviewed used available information, such as published archaeological inventories, when preparing agri-environmental plans and many private planners did not know of the existence of any such data (Sullivan 2004:110). Further

evidence of this came from a *BurrenLIFE* official who stated that, in his experience, planners 'fail to take account of a lot of the archaeology' and ' haven't a clue of the list of monuments'. He believes that, with reference to the Burren, REPS 'has done very little for archaeological protection' (interview 30/04/09). With the exception of O'Sullivan and Kennedy (1998) and Sullivan (2004) little research has been undertaken to assess the impact of REPS upon archaeological features. It has therefore been necessary to rely heavily upon their findings in the absence of alternative sources and further demonstrates the marginalisation of the built heritage within agri-environmental schemes.

Darvill (1987) recommends that, any management plans for the archaeological heritage of any land containing monuments is drawn up by, or on behalf of, the land owner. He asserts that, it should form part of a wide-ranging farm or estate plan; a method which is clearly adopted within both REPS and ES. However, Sullivan's research also reveals that identification of archaeological features can be a major issue for farmers as well. Without adequate training it is unlikely that farmers will understand the importance of the archaeological sites and monuments on their land making such wide-ranging plans ineffective. Teagasc have attempted to address this issue by producing a booklet, *Farming the Ancient Countryside*, in conjunction with staff from other statutory authorities (Sullivan 2004:20). However, one academic source believes that REPS fails to give the farmer any clear indication of what the archaeological sites are, what they were used for and the management requirements needed for their future conservation. He believes that many plans have been so unintelligible that it has been difficult for the farmer 'to find any clear direction' with regards the archaeological sites on his farm. He advocates that REPS courses should be tailored locally so that the archaeology becomes relevant to the individual farmers and the area in which he farms (interview 30/04/09).

Research demonstrates the potential for the discovery of previously unrecorded archaeological features on farmland, as a result of REPS participation, through a combination of farmer knowledge and expert guidance. Once these features are mentioned in agri-environmental plans they are protected by the scheme. This demonstrates the importance of REPS planners reporting new discoveries to the state service so that they can be assessed by qualified archaeologists, subsequently recorded and thus receive the full protection of legislation. Whilst the REPS plan is of limited timescale, state legislation has no period of

cessation and will ensure that the monument or site is protected even if the REPS plan is discontinued or the scheme alters (Sullivan 2004:138). Involvement in agri-environmental schemes is significant in terms of farmers' knowledge of state archaeological records and government legislation. Research conducted by O'Sullivan and Kennedy in county Meath demonstrated that, the majority of REPS farmers questioned had a good knowledge of monument legislation (O'Sullivan & Kennedy 1998:96). Conversely, Sullivan (2004) has shown that less than half of non-REPS farmers have heard of either the Sites and Monuments Record or the Monuments Act (Sullivan 2004:123).

There is also evidence that an awareness of the importance of the historic environment is beginning to increase amongst the farming community as a result of REPS. Sullivan (2004) reports that, in excess of three quarters of REPS farmers he interviewed knew that monuments were protected by law and, whilst equal numbers of REPS and non-REPs farmers confirmed that they had previously removed a monument from their land, all the REPS farmers had removed their features before REPS came into operation in 1994 (Sullivan 2004:123). In respect of the discovery of new monuments upon their land, REPS farmers are increasingly more likely than non-REPS farmers to report new discoveries to the National Museum of Ireland or the Department of the Environment, Heritage and Local Government (Sullivan 2004:124). Sadly, however, fear of prosecution was not perceived as a deterrent to the removal of monuments on farmland amongst those farmers interviewed (O'Sullivan & Kennedy 1998:98) further indicating that current monument legislation has failed to meet its objectives in protecting Ireland's archaeological heritage from damage and destruction.

However, it is clear that a significant body of farmers do have a highly responsible attitude towards archaeological features with attitudes becoming more positive with the increasing age of farmers and, conversely, more negative with an increase in farm size (O'Sullivan 1998:98). The results of O'Sullivan's work certainly support the view that, it is the cohort of larger, more intensive farmers that pose the greatest threat to the preservation of archaeological sites and monuments. Until this sector becomes fully integrated into agri-environmental schemes the protection of the Ireland's historic landscape will remain incomplete (O'Sullivan 1998:98).

7.6 Access

The Heritage Council's Strategic Plan 2007 – 2011 highlights its vision to work in partnership to conserve Ireland's heritage by 'encouraging its accessibility and enjoyment by everyone' (Heritage Council 2007:10). In response, the Republic has recently introduced the Walks Scheme which is operated by Local Development Integrated Companies (formerly LEADER companies) with the assistance of the National Trails Office, Fáilte Ireland and Local Authorities. It is intended to develop, enhance and maintain agreed walking routes and participating farmers enter into five year agreements for which they receive compensation for the work they undertake on an annual basis (Department of Community, Rural and Gaeltacht Affairs 2008:3).

Such increased access to the Irish countryside may be a double edged sword. On the one hand it may benefit the archaeological record. Sullivan (2004) believes that, the removal of an archaeological feature within the contemporary landscape, rarely goes unnoticed by the local community because it becomes part of local knowledge through word of mouth from neighbour to neighbour (Sullivan 2004:66). However, with public access so severely restricted to farmland in Ireland this surely is unlikely to be the case unless the site or monument is clearly visible from the roadside. Interference by the local community would be more likely to occur in England where a network of public access exists across the country. However, on the other hand, increased public access may result in increased pressures on ecologically sensitive areas and it may be more appropriate to divert visitors to more managed sites. Halton reports that, in the Burren, for example, tourists are encouraged to use 'green road systems' such as *The Burren Way* thus relieving visitor pressures on sensitive areas such as archaeological sites (Halton 1993:168).

7.7 Distribution of monuments

***Figure 7.1* shows the percentage allocation of monuments for each county within the Republic of Ireland. The data for this map was taken from the Archaeological Survey of Ireland database in August 2008 although the site is continually undergoing revision and update. Many of the areas with the highest density of monuments lie within the province of Munster. Cork has the highest percentage of monuments within the province at 13.08%, closely followed by Kerry with 10.86% but high percentages are also apparent in Tipperary**

(north and south combined) and Limerick with 6.22% and 6.16% of the archaeological record respectively. Although the percentage of monuments in county Clare does not sit within the highest quartile it falls only marginally short with 5.89% allocation. Significantly, the Burren, which is situated within the county, is of unique international importance and contains a higher density of archaeological monuments per area than anywhere else in the country. Counties Mayo and Glaway, in the province of Connaught also sit within the highest quartile reinforcing the national importance of the western landscape in terms of Ireland's rich heritage and culture.

County Carlow has the lowest density of monuments in the country with only 1.10% allocation although, it must be stated that it represents one of the smallest counties within the country in terms of area size. It is clear that there are zones of low monument density which can be divided by an almost continuous line running from the north-west to the south-east across the map. This obvious division may well reflect the strength of Gaelic Lords within the west and south-west of the country. According to Fitzpatrick (2004), the institution of the outdoor assembly or hilltop gathering enjoyed a long tradition in medieval Gaelic Ireland (Fitzpatrick 2004:201) and many would have taken place at sacred sites. It is believed, for example, that the ringfort of Lios Bán in Inveragh, county Kerry, was an important inauguration site for the continuity in the ritual of Gaelic royalty (Fitzpatrick 2004:211). In contrast the settlement of Anglo-Normans, in the more eastern parts of the country, would not have favoured the preservation of existing features such as earthworks which were often re-used in the construction of Anglo-Norman Mottes and ringworks (O'Keeffe 2001:19). In addition, the creation of manors which, for much of the thirteenth century were, according to O'Keeffe (2001) 'machines for agricultural production' would have impacted significantly upon the archaeological record (O'Keeffe 2001: 61).

Monument density becomes doubly important when the number of farms operating under the Rural Environmental Protection Scheme are taken into consideration (*Figure 7.2*). County Leitrim contains the highest percentage of farmers within REPS at 89.31%. There are a number of reasons why participation rates are so high in this county which have already been discussed in part in previous chapters. Leitrim has a long history of population decline which has resulted in an aging cohort of farmers. It has been shown that older farmers are more sensitive towards their environment and are, therefore, more likely to participate in

incentives that will preserve that environment. This is compounded by the fact that county Leitrim has the poorest quality land in the country. Farming such a landscape will yield little return and REPS is perceived as a system of support to low income farming households. The area also has the highest rates of afforestation and such activities tend to operate alongside REPS agreements. It may also be probable that the REPS advisor for county Leitrim was particularly active in recruiting farmers to the scheme. Conversely the county contains one of the lowest densities of monuments with only 1.71% of the allocation for the whole country. The risk posed to the archaeological record, by non-participation in the scheme, is therefore low because the majority of farmers are REPS participants who are likely to have few monuments situated upon their land. Clearly, there may be an exception to the rule but this can only be assessed through a thorough in depth analysis to assess the type of land individual monuments are situated upon. This has been outside the scope of this thesis.

In comparing counties Waterford and Mayo, it is apparent that levels of risk vary substantially. Rates of REPS participation, within these counties, stands at 70.03% and 53.87% respectively. However, Waterford only contains 2.10% percentage allocation of monuments, one of the lower densities within the country and, like county Leitrim, a high percentage of its farmers already participate in REPS. This implies that any archaeology on farms in Waterford is most probably encompassed within the scheme objectives and already subject to a detailed farm plan. Conversely, in county Mayo only just over half of all farmers have chosen to take up REPS meaning that only half of the county is protected through the application and monitoring of scheme objectives. Given that Mayo has one of the highest percentage allocations of monuments this is of considerable concern as many of the sites and monuments may be situated upon land that is not encompassed within REPS. This risk is, however, lowered when one considers that many western farms are small and are occupied by farmers of or near retirement age. Older farmers, or those with smaller farms, are more likely to have a positive attitude towards the conservation of archaeological features on their land.

Galway is in a similar position to Mayo in that it has a high percentage allocation of monuments at 8.00% yet, just less than fifty percent of its farmers have chosen to participate in REPS. However, this county benefits from the pilot Field Monument Advisor Scheme. The Heritage Council is working in partnership with Local Government and farming communities

to create specific advisor programmes which are intended to support landowners in the care of monuments in their ownership. The presence of this scheme within the county can only benefit the historic environment and lower the potential risk to archaeological sites and monuments, from non-REPS participation, within this county.

The highest risk to archaeological sites and monuments, through non participation in REPS, occurs in the south west of the country. Whilst county Cork has the highest percentage allocation of monuments within the country, less than one third of its farmers have chosen to participate in REPS. In addition, the county does not benefit from the pilot Field Monument Advisor Programme. The REPS participation rate in county Cork is just 32.26%, making this county an ideal candidate for further study.

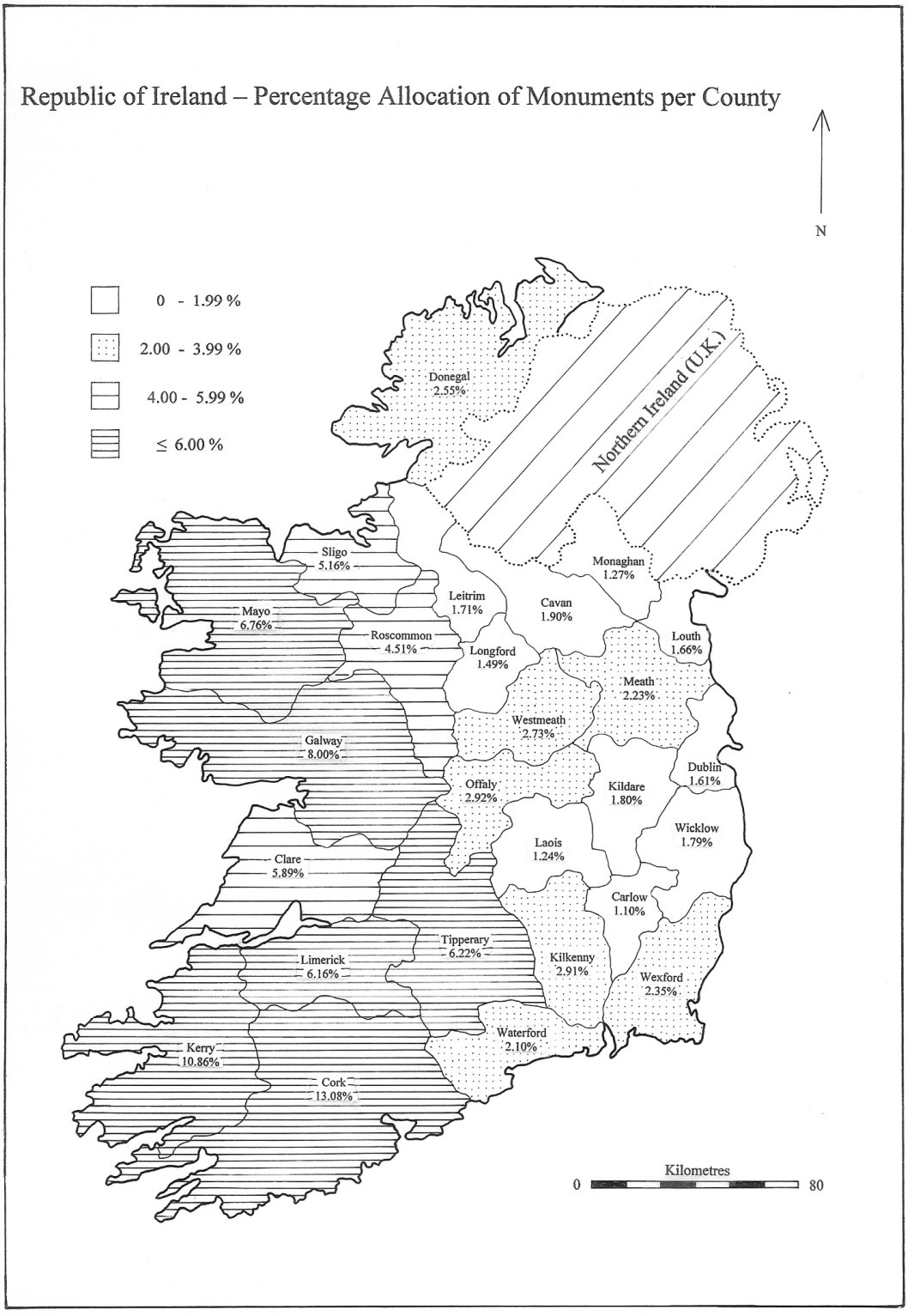
Republic of Ireland – Percentage Allocation of Monuments per County
N
0 - 1.99 %
2.00 - 3.99 %
4.00 - 5.99 %
≤ 6.00 %
Northern Ireland (U.K.)
Donegal 2.55%
Sligo 5.16%
Mayo 6.76%
Roscommon 4.51%
Leitrim 1.71%
Longford 1.49%
Cavan 1.90%
Monaghan 1.27%
Louth 1.66%
Meath 2.23%
Westmeath 2.73%
Galway 8.00%
Offaly 2.92%
Kildare 1.80%
Dublin 1.61%
Wicklow 1.79%
Laois 1.24%
Clare 5.89%
Carlow 1.10%
Tipperary 6.22%
Limerick 6.16%
Kilkenny 2.91%
Wexford 2.35%
Waterford 2.10%
Kerry 10.86%
Cork 13.08%
Kilometres
0
80

Figure 7.1

County	No of farms	No of REPS farms	% Allocation of Farms Under REPS
Leitrim	3724	3326	89.31%
Waterford	2786	1951	70.03%
Mayo	12537	6754	53.87%
Donegal	8805	4427	50.28%
Galway	13662	6723	49.21%
Longford	2746	1292	47.05%
Sligo	4505	2020	44.84%
Westmeath	3437	1509	43.90%
Offaly	3521	1531	43.48%
Monaghan	4567	1972	43.18%
Kerry	8509	3626	42.61%
Clare	6720	2816	41.90%
Cavan	5491	2291	41.72%
Tipperary North	3855	1562	40.52%
Tipperary South	3914	1523	38.91%
Laois	3395	1292	38.06%
Carlow	1877	655	34.90%
Wicklow	2410	817	33.90%
Cork	14240	4594	32.26%
Limerick	6194	1955	31.56%
Wexford	4613	1454	31.52%
Meath	4462	1282	28.73%
Roscommon	6434	1674	26.02%
Kildare	2694	688	25.54%
Kilkenny	3770	933	24.75%
Louth	1764	408	23.13%
Dublin	895	123	13.74%
Totals	141527	59198	

Figure 7.2

CONCLUSIONS

Since man began exploiting the earth's resources in prehistoric times, the landscape has evolved and changed and it will continue to do so as generations of new farmers adapt the environment to their specific needs. As Riley and Harvey (2005) assert, the landscape is not a 'one-dimensional and static' entity and if archaeological heritage is to be preserved for future generations this must be achieved within the dynamics of a living countryside.

The degree of landscape change in Ireland does not appear to have been as great as that in England but the additional pressures on resources in both countries, resulting from agricultural change, tourism and recreational use cannot be denied. The way in which the countryside is being managed is changing rapidly and, in order to preserve heritage, a coherent strategy that balances the demands of agriculture alongside those of conservation is vital.

Within the landscape, no archaeological monument can be divorced from its surroundings and there has been a major shift, in recent times, in the philosophy underlying national and international archaeological legislation and heritage management. This has started to move away from the concentration on individual sites and now recognises the necessity of adopting a whole of landscape approach (Cooney et al 2000:18). The management needs of archaeological heritage managers and those of nature conservators are often complementary but, as Cobb (1999) argues, in order to achieve the interconnected outcomes of biodiversity, amenity and least damaging environmental practices, neighbouring farms must co-ordinate their management practices and the interests of all relevant stakeholders must be accommodated. This means that the landscape must be regarded as an integral unit regardless of ownership, past management practices or previous interpretations (Cobb et al 1999:230). This research has shown that there are significant numbers of farmers who respect their heritage and willingly support the environmental measures that agri-environmental schemes promote. However, farming remains a business and farmland is the tangible asset from which a farmer hopes to derive his income. Consequently, few are willing to put preservation ahead of profit.

Declining farm populations in both countries have had a devastating impact upon rural life and the EU now recognise that agriculture, alone, cannot support such communities. Farming

is unable to provide the necessary employment and income opportunities upon which rural development is dependent and farmers throughout Europe have been encouraged to diversify their enterprises in order to survive. Agricultural policy cannot afford to stand in isolation if the integrity of rural communities is to be retained. Whilst agricultural policy is of vital importance, it must be fully integrated with rural development policy and focus on the specific conditions that exist in different regions if the survival of those rural communities is to be ensured. This has not yet been achieved and current rural development policy objectives are likely to impact significantly on the success of existing agri-environmental schemes.

The decline in agriculture has been further aggravated by food safety scares, concerns over animal health and welfare, global price volatility and now the recession. Fundamental transformations have recently occurred with a growing divergence between farming and non-farming incomes as well as a significant increase in part-time farming which has lead to an intense debate concerning the future viability of the farming sector (Hennessy et al 2008:29). Farm diversification is likely to result in a number of scenarios that will place the essential nature and character of the countryside and its heritage in jeopardy.

The removal of traditional farming systems or the transfer of land into the hands of farmers operating quite different farming systems can trigger damaging environmental change (Potter & Lobley 1993:278) and the withdrawal of farming, from less productive areas, along with the amalgamation of smaller farms into larger enterprises, constitutes a very real threat to archaeological heritage. The likely environmental implications resulting from a decline in farming activity appears to be little debated and seriously under researched. As Potter and Lobley (1993) point out, many small farms may well contain assets that deserve to be protected and properly managed but, it is precisely this type of farm that is likely to be withdraw from agriculture or be sold. There is empirical support for the idea that a change of occupancy will result in landscape change with Westmacott and Worthington (1984) as well as Munton and Marsden (1991) confirming unmistakable links between the two. Those farms situated on uplands may be particularly vulnerable as there is a real possibility that these may be bought by private forestry companies for development (Potter & Lobley 1993:276-277).

The majority of archaeological monuments, sites and landscapes continue to remain in private ownership and there can be little doubt that this poses significant difficulties in terms of their successful management which will require co-operation between all parties concerned including landowners, government departments and the local community. Whilst agri-environmental schemes are frequently ineffective in delivering benefits to whole landscapes, because they focus upon individual farms, it has at least been shown (Di Falco & van Rensburg 2008:630) that participating farmers are more likely to co-operate with other shareholders on a number of agronomic activities than those who do not participate at all in such schemes. By enhancing such co-operation agri-environmental schemes contribute towards the production of desired public goods, such as conservation and recreation, at a broader landscape level.

Land use is a critical factor in the survival of archaeological heritage and its destruction, through agricultural activity, has been well documented. Current legislation is not viewed as sufficient a deterrent in preventing the ongoing destruction of monuments and research has shown (Canham & Chippindale 1988; O'Sullivan & Kennedy 1998) that, in both England and Ireland, even monuments that have been scheduled or recorded are not exempt from destruction. Sullivan's research (2004) of REPS highlights the broad beneficial role of agri-environmental schemes to the rural environment evidenced, primarily, by the fact that no archaeological features had been destroyed on participating farms subsequent to their adoption of the scheme. Indeed, a significant number of previously unrecorded monuments have in fact been identified as a result of participation (Sullivan 2004: i). In light of the scarcity of research and data concerning the effects of agri-environmental policy on archaeological features situated on farmland, there is an urgent need for a system to be established that will monitor the present condition and survival of recorded features, at both national and local levels, and at appropriate intervals (UCD 2006:49).

Both REPS and ESS are generic national level schemes and, in some circumstances, the measures dictated are entirely inappropriate; some may even prove detrimental to the archaeological record in certain localised situations. Aalen (1997) believes that, in order for agri-environmental schemes to be developed for the good of the environment, and not solely for agricultural purposes, it is essential that they reflect the diverse conditions that exist

throughout the rural countryside and embrace greater local involvement in their preparation (Aalen 1997:258).

Schemes in both countries are entirely voluntary although, in England, advisors do actively target farmers in specific areas where priorities for the management of key features and future management issues have already been identified. Management prescriptions within English and Irish agri-environmental schemes are broadly similar and aim to reward farmers financially for farming in a more environmentally friendly way. In doing so they offer a range of benefits to society, as a whole, through the enhancement of the rural landscape and the provision of recreational amenities, improved water quality, wildlife preservation and the maintenance of historical and archaeological features.

There are however significant differences in the way the two schemes operate. Measures, under the Rural Environmental Protection Scheme, cover the whole of the farm and farmers are required to meet all set objectives although, they may also choose additional options from a range of supplementary measures in order to enhance their farm plan. In comparison, Environmental Stewardship operates a menu driven system where by farmers are required to accumulate a certain number of points by choosing from a wide range of weighted options. Additionally, in certain circumstances these management prescriptions may not apply to the whole of the farmed landscape.

A further significant difference is the fact that REPS is open to all farmers in the Republic who farm in excess of a given area size and management prescriptions remain the same regardless of the nature or scale of agricultural activity. By contrast, the ESS is a highly targeted and tiered scheme with higher levels providing for more complex types of land management where agreements may be tailored to local circumstances and where farmers may need additional advice or support. Although Higher Level Stewardship provides greater reward in exchange for more significant environmental benefits, in high priority situations and areas, access to this level of the scheme is restricted.

The targeted nature of HLS within the Environmental Stewardship Scheme in England means that not all archaeological or historical sites and monuments are treated equally intimating that some sites and monuments are of more value than others. This is not the case in Ireland and unrestricted eligibility of the scheme means that all archaeological and historical

resources have the same access to appropriate management prescriptions and are, therefore, equally valued. While agri-environmental schemes have the potential to manage the historic landscape appropriately, their effectiveness is limited by their voluntary nature and, in England, this is further exacerbated by the specific targeting of key areas of the landscape resulting in a patchwork effect of protective measures.

The voluntary nature of the schemes also means that, in the face of increasing agricultural output prices, farmers are likely to withdraw their land from current schemes unless payments remain competitive. As Hodge and Reader (2009) assert, if the cost of delivering environmental goods rises to such a level that it becomes unsustainable, policy makers will have a difficult choice in deciding whether to commit to higher levels of funding or accept lower environmental standards (Hodge and Reader 2009:12). With growing competition for EU budgets from new member states and on going budget reviews there has been growing concern about the future of agri-environmental schemes. These fears have recently been realised in Ireland where future REPS funding has been withdrawn and the scheme closed to new applications. In the absence of suitable alternatives the Irish countryside now faces an uncertain future.

The long-term impacts of agri-environmental policies, in particular the ability of those administering such schemes to sustain the potential benefits produced well into the future, is a neglected area of research (Morris & Potter 1995:52) and an almost universal absence of suitable baseline data means that policies are intrinsically difficult to evaluate. The European Community acknowledges this fact and appreciates that there is a need to construct a strategic and long-term monitoring and evaluation system. A major weakness of both schemes, therefore, has been a lack of comprehensive monitoring and evaluation to determine whether or not they are in fact achieving their objectives.

Above all, the countryside is the work place of the farming community yet perceptions of the rural landscape do not always match this reality. In many respects, in their traditionally pragmatic fashion, farmers are continually responding to the evolving economic and political arena in which they operate and continue to be driven by the persistent pursuit of reward in return for their endeavours (Walford 2003:501). As Morris and Potter (1995) argue, however, one of the most important, if least tangible, objectives of agri-environmental policy and one that has the potential to outlast policy itself must be the opportunity to change these

farmers' attitudes towards the management of the countryside. It is clear that, for many farmers, maintaining certain standards of environmental management is of the utmost importance and some are willing to maintain landscape features on their land even when they could be profitably removed (Hodge 2001:102). This research has shown that there is good evidence, both in England and Ireland, that individuals are committed to protecting archaeology on their land without relying upon the benefits of agri-environmental schemes. But this is not true of all farmers so, what are the alternatives in the absence of such schemes?

To ensure the environmental management of intensively farmed regions, the *Rural Ireland 2025 Foresight Perspectives* publication recommends a scheme tailored to suit full-time commercial farmers independently of REPS. The *Public Goods Incentives Scheme* would be designed to encourage their participation in conserving natural habitats and archaeological sites without unduly inhibiting profitability. Unlike REPS, the scheme would have no predetermined limitations on the productivity of the whole farm and would focus on those areas that possess significant public goods especially natural habitats, historic landscapes and archaeological sites. Payments would be conditional upon adherence to environmental directives, regulations and the codes of practice and would be devised to additionally address the issue of public access to such areas (NUI et al 2005:18).

The LEADER (Liasons Entre Actions *Développement de l'Economie Rurale)* programme, financed by the EU and introduced in 1991, has undergone several transformations and has become a major feature of rural development within Ireland, although there appears to be less reliance upon the scheme in England. The recent LEADER+ programme seeks to encourage integrated, high quality, original strategies for sustainable development designed to encourage innovation in enhancing the natural and cultural environment of an area (Holdaway & Smart 2001:156). One example of success is the Blackdown Hills Rural Partnership, in England, set up in 1995 and consisting of representatives drawn from a range of diverse backgrounds including county, district and parish councils, public bodies, the farming community, land owners as well as wildlife and archaeological interests.

The Blackdown Hills is a little known, but truly rural, area straddling the Devon and Somerset border. The agriculture of this AONB consists mainly of traditional dairy farms with small fields and woodlands linked by deeply hedges lanes. The area is rich in archaeological

sites and has important semi-natural habitats including fourteen Sites of Special Scientific Interest (SSSI).The area is characterised by stark contrasts between wealth and poverty with a serious lack of employment opportunities and the uncertain prospects of many of the small farms. A 'bottom up' approach, in which networking and consensus-building play major roles, the partnership is able to work towards a number of community based initiatives. The partnership has not been without its difficulties. Problems surrounding the uncertainty of short-term funding, little statutory backing and a lack of resources for monitoring have been ongoing but it has successfully generated employment through a number of initiatives including an AONB-based business directory and buyers guide, farm diversification, specialised green tourism, B&Bs and visitor bus services. Village activities, encompassing the arts and local environment, have also been successful (Holdaway & Smart 2001:208).

Evaluation studies, undertaken by EPSON, suggest that both LEADER II and LEADER + initiatives can have a considerable impact upon the development of rural regions. Such activities induce and convey responsibility to local partnerships by linking public and private institutions alongside the different interests of various local actors to a common strategy. Whilst LEADER is generally not an instrument that can change local economic structures in a *direct* way, it does stimulate various processes within the local economy, such as raising awareness and strengthening strategy and co-operation within the region, that can *indirectly* lead to enduring economic benefits (EPSON 2006:23).

It would appear that the pilot Field Monument Advisor Scheme, established in Ireland may be a possible way forward in respect of the conservation and preservation of archaeology that is situated upon farmland. The scheme has already proved popular and successful in the Burren in county Clare and, whilst it is undoubtedly time consuming, the planning and engagement process is 'tremendously rewarding' and can be utilised for a number of other functions such as tourism initiatives (interview 30/04/09) thereby dovetailing with current rural development policies. It is possible that policy makers, farmers and rural communities have created a template in the Burren that could be of benefit elsewhere.

The Burren National Park was established in 1991 as Ireland's fifth National Park and is managed by the National Parks and Wildlife Service of the Department of the Environment, Heritage and Local Government. Around 500 farm families continue to make their living on the Burren, half the number of just thirty years ago. The Burren landscape has been exploited

by humans since prehistoric times to create the unsurpassed archaeological legacy that still exists today. Some REPS measures are not suited to the area and the Burren Agreement makes allowances for local farmers to follow their more traditional farming practices which are at often at odds with normal scheme prescriptions.

In conjunction with the Burren IFA and with the support of the Heritage Council, the Burrenbeo Trust has been established. Using the recommended 'bottom up' approach a series of public meetings, with key stakeholders, have enabled this voluntary Trust to identify the needs, concerns and aspirations of farm families and rural communities living in the area. The Trust is active in arranging a continuous programme of events to help inform people about this unique environment within a broader scenario of tourism and recreational activity.

In contrast, the BurrenLIFE Project was established to develop a blueprint for sustainable farming in the Burren area that meets the needs of both farming and conservation. The Project emphasis is on engagement, partnership and practical, proactive action and a rigorous programme of agricultural, environmental and socio-economic monitoring is undertaken. The project works closely with 20 LIFE 'monitoring farms' to assess ways in which these farms might best be managed so that they can continue to farm whilst protecting the extraordinary landscape of the Burren. The work is supported by project partners National Parks and Wildlife Service, Burren IFA and Teagasc and widespread farmer interest was demonstrated by strong competition amongst Burren farmers to be selected for the Project. Sixteen of the farms are in REPS and a unique Farm Management Plan has been developed for every farm to accommodate the diversity of that individual farm (BurrenLIFE Project newsletter 2008).

Various strategies have previously been attempted in the Burren including *Tourism in the Burren – A Strategic Plan*, the *Burren Monuments Strategy* and the *Burren Consultative Committee*, yet all have failed to produce any strategic action or planning for the area because they failed to reconcile national policies with local needs (Lysaght 2005:9). It is possible, however, that the voluntary Burrenbeo Trust, the European funded BurrenLIFE Project and the pilot Field Monument Advisor Service may offer a template for other areas in so far as they appear to successfully meet the needs of all stakeholders as well as ensuring that heritage and traditions are preserved for future generations.

There has been a definite marginalisation of the built heritage within both national and EU environmental conservation policy. Current EU environmental directives are largely concerned with the management and preservation of the natural environment rather than cultural heritage and this imbalance has been carried through to agri-environmental policies. In both England and Ireland, policy is motivated more by the need to sustain the character of the natural environment and less by a concern to conserve the built heritage. Schemes are not sufficiently widespread or numerous to create anything other than a patchwork of potential preservation of monuments and lack the contiguity to benefit the historical landscape as a whole.

Holbeche (1986) is correct in his assertions that, nature conservation has had a 'disproportionate amount of publicity' at the expense of the rest of the national heritage including fine landscapes and historical features such as monuments, ancient woodland and hedges (Holbeche 1986:33). Even within the pages of official documents the number of lines devoted to the management and preservation of the historical landscape is reduced to miniscule proportions in comparison to the body of print devoted to the natural environment. But, perhaps one of the strongest indications that natural heritage is considered to be of greater importance than built heritage is simply in the change of a name. When Natural England chose to change the name of its agri-environmental scheme from *Countryside* Stewardship to *Environmental* Stewardship their intentions were made clear.

The general aims of this thesis were to compare agri-environmental schemes within England and the Republic of Ireland and assess whether archaeological heritage had been marginalised by such schemes. Having assessed that such marginalisation had indeed occurred, it further aimed to assess the levels of risk that had resulted from such a policy. In order to facilitate comparison, research concentrated upon the Rural Environmental Protection Scheme, in Ireland, and Environmental Stewardship within England. Shortly before completion of this thesis future REPS funding, in Ireland, was withdrawn.

The mapping of monument density, together with levels of participation in agri-environmental schemes, has produced some interesting results. It is evident that, in terms of scheme objectives to protect archaeological heritage, agri-environmental schemes in both countries are not fully effective. This is because they are not sufficiently widespread and levels of participation are too low in areas where monument density is high. Base line data

has revealed, however, that within Ireland, at least, there are regions with significant rates of agri-environmental scheme participation, county Leitrim being a notable example. Such high levels of participation are not mirrored within English schemes. Levels of risk become apparent once base line data are contrasted and there are distinct areas of high risk within both countries.

With the highest percentage allocation of monuments in Ireland, county Cork has less than one third of its total farms actively managing archaeology on their land through agri-environmental schemes. Similarly, Yorkshire in England has the highest percentage allocation of monuments in the country and, again, less than one third of its total number of farms is actively involved in agri-environmental schemes. In view of a virtual absence of research and data concerning the effects of agri-environmental policy on archaeological features situated upon farmland it is essential that systems are put in place that will monitor their present condition and survival at appropriate intervals. It is vital that such research concentrates upon relevant areas where the risk to archaeological heritage is very real. Given that both county Cork and Yorkshire are two of the areas at greatest risk from non-participation in agri-environmental schemes, yet contain the highest densities of monuments, they offer a unique opportunity for further qualitative, quantitative and comparative research.

BIBLIOGRAPHY

Aalen, F. (1993) Imprint of the Past. In Gillmor, D. ed. *Our Way of Life. Heritage, Wildlife, Countryside, People*. Dublin: Wolfhound Press, pp. 72-108.

Aalen, F.H.A., Whelan, K. and Stout, M. eds. (1997) *Atlas of the Irish Rural Landscape*. Cork: Cork University Press.

Aalen, F.H.A. (1997) Management of the Landscape. In Aalen, F.H.A., Whelan, K. and Stout, M. (1997) *Atlas of the Irish Rural Landscape*. Cork: Cork University Press, pp. 255-259.

Aalen, F.H.A. (1997) Bogs. In Aalen, F.H.A., Whelan, K. and Stout, M. (1997) *Atlas of the Irish Rural Landscape*. Cork: Cork University Press, pp. 106-107.

Agnew, J. (2008) Nationalism. In Duncan, J.S., Johnson, N.C. & Schein, R.H. eds. *A Companion to Cultural Geography*. Oxford: Blackwell Publishing, pp. 223-237.

Agri Vision 2015 Committee (2004) *Report of the Agri Vision 2015 Committee*. Dublin: Department of Agriculture and Food.

Agricultural Economics Unit (1983) *The Role of Farm Tourism in the Less Favoured Areas of England and Wales 1981. A Physical and Financial Appraisal*. Exeter: University of Exeter.

Archaeology Ireland (1995) *Archaeology Ireland*, 9, 2.

Arnold, J., Davies, K, and Ditchfield, S. eds. (1998*) History and heritage. Consuming the Past in Contemporary Culture*. Dorset: Donhead Publishing Ltd.

Ashworth, G.J. (1994) From History to Heritage – From Heritage to Identity. In search of concepts and modules. In Ashworth, G.J. & Larkham, P.J. eds. *Building a New Heritage: Tourism, Culture and Identity in the New Europe*. London: Routledge.

Ashworth, G.J. & Larkham, P.J. eds. (1994) *Building a New Heritage: Tourism, Culture and Identity in the New Europe*. London: Routledge.

Ashworth, G.J. & Larkham, P.J. (1994) A Heritage for Europe. The need, the task, the contribution. In Ashworth, G.J. & Larkham, P.J. eds. *Building a New Heritage: Tourism, Culture and Identity in the New Europe*. London: Routledge, pp. 1-9.

Baldock, D., Cox, G., Lowe, P. and Winter, M. (1990) Environmentally Sensitive Areas: Incrementalism or Reform? *Journal of Rural Studies*, 6 (2), pp. 143-162.

Barrett, G. (1997) The Destruction of Antiquities: An Aerial View. In Aalen, F.H.A., Whelan, K. and Stout, M. eds. *Atlas of the Irish Rural Landscape*. Cork: Cork University Press, pp. 250-254.

Bartley, B. & Kitchen, R. eds (2007) *Understanding Contemporary Ireland*. London: Pluto Press.

Bastos, R.L. and Funari, P.P.A. (2008) Public Archaeology and Management of the Brazilian Archaeological-Cultural heritage. In Silverman, H. and Isbell, W.H. eds. *Handbook of South American Archaeology*. New York: Springer, pp. 1127-1133.

Baylis, K., Peplow, S., Rausser, G. and Simon, L. (2008) Agri-environmental policies in the EU and United States: A comparison. *Ecological Economics*, 65, pp. 753-764.

Bennett, I. (1989) The Settlement Pattern of Ringforts in county Wexford. *Journal of the Royal Society of Antiquaries of Ireland*, 119, pp. 50-61.

Berentsen, P.B.M., Hendriksen, A., Heijman, W.J.M. and van Vlokhovan, H.A. (2007) Costs and benefits of on-farm nature conservation. *Ecological Economics*, 62, pp. 571-579.

Blackdown Hills. Available online at www.blackdown-hills.net/ [18/09/09].

Boran, M. (2007) Tools of the Tourist Trade: The Photography of R.J.Welch. In Breathnach, C. ed. *Framing the West. Images of Rural Ireland 1891-1920*.Dublin: Irish Academic Press, pp. 48-60.

Borsotto, P., Henke, R., Macri, M.C. and Salvoni, C. (2008) Participation in Rural Landscape Conservation Schemes in Italy. *Landscape Research*, 33 (3), pp. 347-363.

Bowler, I. (2003) From productivity to sustainability: resolving the contemporary crisis in United Kingdom farming and food? *Geographia Polonica*, 76 (1), pp. 39-54.

Brace, C. (2006) Landscapes and Senses of Place. In Kain, R.J.P., ed. *England's Landscape. The South West*. London: HarperCollins, pp. 229-246.

Brace, C. (2003) Landscape and Identity. In Robertson, I. & Richards, P. eds. *Studying Cultural Landscapes*. London: Arnold, pp. 121-140.

Brady, N. and Murphy, M. (2009) Agriculture and settlement at Forth/Castlemore Co. Carlow c1200-1400: archaeological and documentary approaches. Joint conference of the *Group for the Study of Irish Historic Settlement and the Agricultural History Society of Ireland*, Dublin: Drumcondra 6th-8th March 2009.

Breathnach, C. (2007) *Framing the West. Images of Rural Ireland 1891-1920*. Dublin: Irish Academic Press.

Breen, J.P., Hennessy, T.C. and Thorne, F.S. (2005) The effect of decoupling on the decision to produce: An Irish case study. *Food Policy*, 30, pp. 129-144.

Breese, S. (1998) In Search of Englishness; in Search of Votes. In Arnold, J., Davies, K, and Ditchfield, S. eds. *History and heritage. Consuming the Past in Contemporary Culture*. Dorset: Donhead Publishing Ltd, pp. 155-167.

Brett, D. (1996) *The Construction of Heritage*. Cork: Cork University Press.

Brouwer, F. and Lowe, P. eds. (2000) *CAP Regimes and the European Countryside*. Walligford: CABI Publishing.

Buckley, V.M. (1986) *Archaeological Inventory of County Louth*. Dublin: The Stationery Office.

Buckley, C., Hynes, S., van Rensburg, T.M. and Doherty, E. (2008) Access to farmland for walking in the Republic of Ireland – The attitude of landowners. *Rural Economy Research Centre Working Paper* Series no. 08-WP-RE-14. Carlow: Teagasc.

Buller, H. (2000) The Agri-environmental Measures 2078/920. In Brouwer, F. and Lowe, P. eds. *CAP Regimes and the European Countryside*. Walligford: CABI Publishing, pp. 199-219.

Bunce, M. (1994) *The Countryside as ideal. Anglo-American Images of Landscape*. London: Routledge.

Bunce, M. (2003) Reproducing the Rural Idyll. In Cloke, P. ed. *Country Visions*. London: Prentice Hall, PP. 14-30.

Burgess, J.; Clark, J. and Harrison, C.M. (2000) Knowledges in action: an actor network analysis of a wetland agri-environment scheme. *Ecological Economics*, 35, pp. 119-132.

Burrenbeo Trust, *The Burren. A Simple Factsheet*, undated.

Burrenbeo Trust (2009) www.burrenbeo.com/burren-trust-article.aspx?article [29/08/09].

Burrenbeo Trust (2009) *Monthly E-Newsletter March 2009*. Available online at www.burrenbeo.com [15/04/09].

Burrenbeo Trust (2009) *Monthly E-Newsletter May 2009.* Available online at www.burrenbeo.com [02/06/09].

Burrenbeo Trust (2009) *Monthly E- Newsletter August 2009*. Available online at www.burrenbeo.com [08/09/09].

Burrenbeo Trust (2009) *Monthly E-Newsletter September 2009*. Available online at www.burrenbeo.com [08/09/09].

BurrenLIFE Project (2008) *Annual Newsletter*, Winter 2007/Spring 2008.

Burton, R. and Wilson, G.A. (2006) Injecting social psychology theory into conceptualisation of agricultural agency: towards a post-productivist farmer self identity? *Journal of Rural Studies*, 22, pp. 95-115.

Burton, R.J.F., Kuczera, C. and Schwarz, G. (2008) Exploring Farmers' Cultural Resistance to Voluntary Agri-environmental Schemes. *Sociologia Ruralis*, 48, 1, pp. 16-37.

Busck, A.G. (2002) Farmers' Landscape Decisions: Relationships between Farmers' Values and Landscape Practices. *Sociologia Ruralis*, 42, 3, pp. 233-249.

Buttimer, A. (1998) Landscape and Life: Appropriate Scales for Sustainable Development. *Irish Geography*, 31, 1, pp. 1-33.

Buttimer, N., Rynne, C. and Guerin, H. eds. (2000) *The Heritage of Ireland*. Cork: The Collins Press.

Byrne, A., Edmondson, R. and Fahy, K. (1993) Rural Tourism and Cultural Identity in the West of Ireland. In O'Connor, B. and Cronin, M. eds *Tourism in Ireland: A Critical Perspective*. Cork: Cork University Press, pp. 233-257.

Campbell, D., Hutchinson, W.G., Scarpa, R., O'Leary, T., McCormack, A. and Riordan, B. (2006) Quantifying the landscape benefits arising from the rural Environmental Protection Scheme: results from a public survey. *The Rural Economy Research Centre Working Paper Series* 06-WP-RE-08, Carlow: Teagasc.

Canham, R. and Chippindale, C. (1988) Managing for Effective Archaeological Conservation: The Example of Salisbury Plain Military Training Area, England. *Journal of Field Archaeology*, 15 (1), pp. 53-65.

Carey, P.D., Short, C., Morris, C., Hunt, J., Priscott, A., Davis, M., Finch, C., Curry, N., Little, W., Winter, M., Parkin, A. and Firbank, L.G. (2003) The multi-disciplinary evaluation of a national agri-environmental scheme. *Journal of Environmental Management*, 69, pp. 71-91.

Carter, R.W.G. and Parker, A.J. eds. (1989) *Ireland: A Contemporary Geographical Perspective*. London: Routledge.

Carter, S. (1999) Multiple business ownership in the farm sector: assessing the enterprise and employment contributions of farmers in Cambridgeshire. *Journal of Rural Studies*, 15, pp. 417-429.

Carver Knowles (2008) *Blackdown Hills AONB Entry Level Stewardship Project*. Somerset: Carver Knowles.

Case, H., Brayne, N, Steele, S., Avery, G. and Sutermeister, H. (1965) Excavations at City Farm, Hanborough, Oxon. *Oxoniesia*, 29, pp. 1-98.

Caulfield, S. (1978) Neolithic Fields: The Irish Evidence. *British Archaeological Reports*, 48, pp. 137-143.

Cawley, M. and Gillmor, D.A. (2008) Integrated Rural Tourism: Concepts and Practice. *Annals of Tourism Research*, 35 (2), pp. 316-337.

Cawley, M., Gaffey, S. and Gillmor, D.A. (2002) Localization and global reach in rural tourism: Irish evidence. *Tourist Studies*, 2 (63), pp. 64-86.

Central Statistics Office, Ireland (2008). *Visitors to Ireland – Estimated Expenditure and Total International Tourism and Travel Earnings*. Available online at www.cso.ie/statistics/visexpend.htm [12/11/08].

Central Statistics Office, Ireland (2008a). *Visitors to Ireland – Estimated Number of Overseas Visits*. Available online at www.cso.ie/statistics/vistoirenumoseasvisits.htm [13/11/08].

Cloke, P. (1993) The Countryside as Commodity. In Glyptis, G. ed. *Leisure and the Environment*. London: Belhaven, pp. 53-67.

Cloke, P. ed. (2003) *Country Visions*, London: Prentice Hall.

Cobb, D., Dolman, P. and O'Riordan, T. (1999) Interpretations of sustainable agriculture in the UK. *Progress in Human Geography*, 23, 2, pp. 209-235.

Convery, F.J. European Economic Policies and Ireland. In Carter, R.W.G. and Parker, A.J. eds. *Ireland: A Contemporary Geographical Perspective*. London: Routledge, pp. 9-21.

Cooney, G. (1999) Timescapes: Understanding and Managing Archaeological Landscapes in Ireland. Conference paper 7, *Policies and Priorities for Ireland's Landscape*, Tullamore, County Offally, April 1999.

Cooney, G., Condit, T. and Byrnes, E. (2000) The Archaeological Landscape. In Buttimer, N., Rynne, C. and Guerin, H. eds. *The Heritage of Ireland*. Cork: The Collins Press, pp. 18-28.

Countryside Alliance (2004) *Our response to the Rural White Paper*. Available online at www.countryside-alliance.org.uk/political/general/our-response-to-the-rural-white-paper [17/11/08].

County Mayo Heritage Forum (2006) *County Mayo Heritage Plan 2006 – 2011*. Mayo: County Mayo Heritage Forum.

Courtney, P., Hill, G. & Roberts, D. (2006) The role of natural heritage in rural development: An analysis of economic linkages in Scotland. *Journal of Rural Studies*, 22, pp 469-484.

Crowley, E. (2006) *Land Matters. Power Struggles in Rural Ireland*. Dublin: The Lilliput Press.

Cullerton, N., Tunney, H. and Coulter, B. (1994) Sustainability in Irish Agriculture. *Irish Geography*, 27, 1, pp. 36-47.

Cuppage, J. (1986) *Archaeological Survey of the Dingle Peninsula*. Ballyferriter: Oidreacht Chorca Dhuibhne.

Daniels, S. (1993) *Fields of Vision. Landscape, Imagery and National Identity in England and the United States*. Cambridge: Polity Press.

Dartmoor National Park Authority (2003) *A Guide to the Archaeology of Dartmoor*. Revised edition. Devon: Halsgrove.

Dartmoor National Park Authority (2006) *Bogs & Wetlands Factsheet*. Devon: Dartmoor National Park Authority.

Dartmoor National Park Authority (2009) *Discover Dartmoor*. Available online at www.discoverdartmoor.co.uk/things-to-do/folklore [24/07/09].

Dartmoor National Park Authority (2009a) *Projects and Initiatives to date*. Available online at www.dartmoor-npa.gov.uk/index/living/li-hillfarmproject [05/09/09].

Darvill, T. (1987) *Ancient Monuments in the Countryside. An archaeological management view*. London: Historic Buildings and Monuments Commission for England.

Darvill, T. and Fulton, A (1998) ***The Monuments at Risk Survey of England 1995*****. London: School of Conservation Sciences, Bournemouth University, Bournemouth and English Heritage.**

Darvill, T., Gerrard, C. and Startin, B. (1993) Identifying and protecting historic landscapes. ***Antiquity*****, 67, pp. 563-574.**

Daugstad, K., Ronningen, K. and Skar, B. (2006) Agriculture as an upholder of cultural heritage? Conceptualizations and value judgements – A Norwegian perspective in international context. ***Journal of Rural Studies*****, 22, pp. 67-81.**

Deeben, J., Groenewoudt, B.J., Hallewas, D.P. and Willems, W.J.H. (1999) Proposals for a Practical System of Significance Evaluation in Archaeological Heritage Management. ***European Journal of Archaeology*****, 2 (2), pp. 177-199.**

DAFF (2007) ***Croughlan Launches €3 Billion Rural Environmental Protection Scheme (REPS 4).*** **Available online at www.agriculture.gov.ie/index.jsp?file=pressrel/2007/147-2007.xml [21/01/09].**

DAFF (2007) ***Rural Environmental Protection Scheme. Requirements for REPS 4 Planners and Planning Agencies*****. Circular 08/07 dated 11th September 2007.**

DAFF (2008) ***Rural Environmental protection Scheme. Farmer's Handbook for REPS 4*****. Wexford: Department of Agriculture, Fisheries and Food.**

DAFF (2009) ***Minister confirms department allocation for 2009*****. Available online at www.agriculture.gov.ie/press/pressreleases/2009/april/title,30546,en.html [28/08/09].**

DEFRA (2005) ***Higher Level Stewardship Handbook. Terms and conditions and how to apply.*** **Available online at www.defra.gov.uk [17/01/09].**

DEFRA (2008) ***CAP 'Health Check'*****. Available online at www.defra.gov.uk/farm/contact/link/articles/0808/capfit.htm [17/01/09].**

DEFRA (2009) ***Agricultural Statistics in your Pocket 2008*****. Available online at www.defra.gov.uk/farm/index.htm [15/08/09].**

DEFRA (2009) *The Future of our Farming*. London: DEFRA.

Department for the Environment, Transport and the Regions (DETR) (2000) *Our Countryside:* the future. Rural White Paper. London: Her Majesty's Stationery Office.

Department of Arts, Heritage, Gaeltacht and the Islands (An Roinn Ealaíon, Oidhreachta, Gaeltachta & Oileán) (1999) *Framework and Principles for the Protection of the Archaeological Heritage*. Dublin: Stationery Office.

Department of Community, Rural and Gealtacht Affairs Leaflet (2008) *The Walks Scheme.* Dublin: Department of Community, Rural and Gealtacht Affairs.

Di Falco, S. and van Rensburg, M. (2008) Making the Commons Work: Conservation and Cooperation in Ireland. *Land Economics*, 84 (4), pp. 620-634.

Dietvorst, A.G.J. (1994) Cultural Tourism and Time-Space Behaviour. In Ashworth, G.J. & Larkham, P.J. eds. *Building a New Heritage: Tourism, Culture and Identity in the New Europe*. London: Routledge, pp.69-89.

Discovery Programme (2009) Photograph available online at www.discoveryprogramme.ie/res.html [21/07/09].

Dobbs, T.L. and Pretty, J.N. (2004) Agri-environmental Stewardship Schemes and 'Multifunctionality''. *Review of Agricultural Economics*, 26 (2), pp. 220-237.

Dobbs, T.L. and Pretty, J.N. (2008) Case study of agri-environmental payments: The United Kingdom. *Ecological Economics*, 65, pp. 765-775.

Douet, A. (1994) Agriculture in the 20th Century. In Wade-Martins, P. ed. *An Historical atlas of Norfolk*. Norfolk: Norfolk Museums Service. 2nd edition, pp. 176-177.

Doyle, G. J. and Ó Críodáin, C. (2003) Peatlands – fens and bogs. In Otte, M.L. ed. *Wetlands of Ireland. Distribution, ecology, uses and economic value*. Dublin: University College Dublin Press, pp. 79-108.

Drew, D. (1993) The Shape of the Land. In Gillmor, D. ed. *Our Way of Life. Heritage, Wildlife, Countryside, People*. Dublin: Wolfhound Press, pp. 13-40.

Drew, D. and Magee, E. (1994) Environmental implications of Land Reclamation in the Burren, county Clare: a preliminary analysis. *Irish Geography* 27 (2), pp. 81-96.

Duffy, P.J. (1997) Writing Ireland. Literature and art in the representation of Irish place. In Graham, B. ed. *In Search of Ireland. A Cultural Geography*. London: Routledge, pp. 64-83.

Duffy, P. (1994) Conflicts in Heritage and Tourism. In Kockel, U. ed. *Culture, Tourism and Development. The Case of Ireland*. Liverpool: Liverpool University Press, pp. 77-86.

Duncan, J.S., Johnson, N.C. & Schein, R.H. eds. (2008) *A Companion to Cultural Geography*. Oxford: Blackwell Publishing.

Dunford, B. (2007) High Nature Value Farming. *Heritage Outlook*, Winter 2007/Spring 2008, pp. 18-21.

Dunne, F. and Doyle, G. (1998) Changes in the Vegetation of Molina-dominated Blanket Bog due to Grazing by Kerry Cattle. In O'Leary, G. and Gormley, F. eds. *Towards a Conservation Strategy for the Bogs of Ireland*. Dublin: Irish Peatland Conservation Council, pp. 111-118.

Edwards, D. ed. (2004) *Regions and Rulers in Ireland 1100 – 1650*. Dublin: Fourcourts Press.

EFNCP (European Forum on Nature Conservation and Pastoralism) (2000) *Recognising European pastoral farming systems and understanding their ecology: a necessity for appropriate conservation and rural development policies*. Occasional Publication, 23. Argyll: EFNCP.

Emerick, K. (1998) Sir Charles Peers and After. From Frozen Monuments to Fluid Landscapes. In Arnold, J., Davies, K, and Ditchfield, S. eds. *History and heritage. Consuming the Past in Contemporary Culture*. Dorset: Donhead Publishing Ltd, pp. 183-195.

Emerson, H.J. and Gillmor, D.A. (1999) The Rural Environmental Protection Scheme of the Republic of Ireland. *Land Use Policy*, 16, pp. 235-245.

English Heritage Strategy 2005-2010 (2005) *Making the Past Part of Our Future*. London: English Heritage.

English Heritage (2008) *Annual Report & Accounts 2007/2008*. London: English Heritage.

English Heritage (2008) *The Schedule of Monuments*. Available online at www.english-heritage.org.uk/server/show/ConWebDoc.4731 [01/09/09].

English Heritage (2009) *HELM Historic Environment Local Management. Sites in Farmland.* Available online at www.english-heritage.org.uk/server/show/nav.1664?GA [21/07/09].

English Heritage (2009a) Photographs available online at www.picselect.com [12/05/09].

EPSON (2004), EPSON Project 2.1.3 *The Territorial Impact of CAP and Rural Development Policy*. Aberdeen: Arkleton Institute for Rural Development Research, University of Aberdeen.

Erjavec, K. and Erjavec, E. (2008) Changing EU agricultural policy discourses? The discourse analysis of Commissioner's speeches 2000-2007. *Food Policy*, article in press.

Erjavec, K., Erjavec, E. and Juvančič, L. (2008) New Wine in Old Bottles: Critical Discourse Analysis of the Current Common EU Agricultural Policy Reform Agenda. *Sociologia Ruralis*, 49 (1), pp. 41-55.

Evans, E.E. (1942) *Irish Heritage. The Landscape, the People and Their Work*. 9th edition. Dundalk: Tempest.

Fáilte Ireland (2007) *Tourism Facts 2007*. Dublin: Fáilte Ireland.

Fáilte Ireland (2007a) *TourismProduct development Strategy 2007-2013*. Dublin: Fáilte Ireland.

Fáilte Ireland (2007b) *Regions West 2007*. Dublin: Fáilte Ireland.

Fáilte Ireland West (2007) *Regional Tourism Development Plan 2008-2010*. Galway: Fáilte Ireland West.

Fáilte Ireland West (2008) *Operational Plan 2008*. Galway: Fáilte Ireland West.

Falconer, K. (2000) Farm-level constraints on agri-environmental scheme participation: a transactional perspective. *Journal of Rural Studies*, 16, pp. 379-394.

Farmar-Bowers, Q. and Lane, R. (2009) Understanding farmers' strategic decision-making processes and the implications for biodiversity conservation policy. *Journal of Environmental Management*, 90, pp. 1135-1144.

Faulkner, N. (2000) Archaeology from Below. *Public Archaeology*, 1, pp. 21-33.

Feehan, J. (1994) Tourism, Environment and Community Development. In Kockel, U. ed. *Culture, Tourism and Development. The Case of Ireland*. Liverpool: Liverpool University Press, pp. 97-102.

Feehan, J. (2003) *Farming in Ireland. History Heritage and Environment*. Dublin: University College Dublin, Faculty of Agriculture.

Ferrari, S. and Rambonilaza, M. (2008) Agricultural Multifunctionality Promoting Policies and the Safeguarding of Rural Landscapes: How to Evaluate the Link? *Landscape Research*, 33 (3), pp. 297-309.

Ferriter, D (2007) *Judging Dev*. Dublin: Royal Irish Academy.

Fischler, F. (2003) Fischler forges ahead. *Farmers Journal*. Available online at www.farmersjournal.ie/2003/1122/farmbusiness/business/eu&government.shtml [25/11/08].

Fitzpatrick, E. (2004) Parley sites of Ó Néill and Ó Domhnaill in late sixteenth-century Ireland. In Edwards, D. ed. *Regions and Rulers in Ireland 1100 – 1650*. Dublin: Fourcourts Press, pp. 201-216.

Fleming, A. (2008) *The Dartmoor Reaves, investigating prehistoric land divisions*. 2nd edition. Oxford: Oxbow Books Ltd.

Fowler, P.J. (1992), *The Past in Contemporary Society: Then, Now*. London: Routledge.

Fox, J. (2007) REPS4: What do we think? In *Farmers Journal.* Available online at www.farmersjournal.ie.2007/0908/farmmanagement/environment/feature.shtml [25/11/08].

Garrod, G. and Whitby, M. (2005) *Strategic Countryside Management*. London: Elsevier Science.

Gillmor, D. (1989) Agricultural Development. In Carter, R.W.G. and Parker, A.J. eds. *Ireland: A Contemporary Geographical Perspective*. London: Routledge, pp. 171-199.

Gillmor, D. ed. (1993) *Our Way of Life. Heritage, Wildlife, Countryside, People*. Dublin: Wolfhound Press.

Gillmor, D. (1993) Management of the Countryside. In Gillmor, D. ed. *Our Way of Life. Heritage, Wildlife, Countryside, People*. Dublin: Wolfhound Press, pp. 200-211.

Gillmor, D. (1994) Tourism Development and Impact in the Republic of Ireland. In Kockel, U. ed. *Culture, Tourism and Development. The Case of Ireland*. Liverpool: Liverpool University Press, pp. 17-34.

Gillmor, D.A. (1999) The Agriculture of the Republic of Ireland within the European Union. *Geographia Polonica*, 72 (1), pp. 47-61.

Gillmor, D.A. (1999a) The Scheme for Early Retirement from Farming in the Republic of Ireland. *Irish Geography*, 32 (2), pp. 78-86.

Gillmor, D. A. (2003a) Change in rural Europe. *Geographia Polonica*, 76 (1), pp. 3-12.

Gillmor, D. A. (2003b) Irish rural development within the European Union. *Geographia Polonica*, 76 (1), pp. 111-126.

Glyptis, G. ed. (1993) *Leisure and the Environment*. London: Belhaven.

Gorton, M., Douarin, E., Davidova, S. and Latruffe, L. (2008) Attitudes to agricultural policy and farming futures in the context of the 2003 CAP reform: A comparison of farmers in selected established and new Member States. *Journal of Rural Studies*, 24, pp. 322-336.

Gosling, P. (1991) The Burren in Early Historic Times. In O'Connell, J.W. and Korff, A. eds. *The Book of the Burren*. Galway: Tír Eolas, pp. 77-94.

Graham, B.J. (1994) Heritage Conservation and Revisionist Nationalism in Ireland. In Ashworth, G.J. & Larkham, P.J. eds. *Building a New Heritage: Tourism, Culture and Identity in the New Europe*. London: Routledge, pp. 135-158.

Graham, B. ed. (1997) *In Search of Ireland. A Cultural Geography*. London: Routledge.

Graham, B. (1997) The Imagining of Place. Representation and identity in contemporary Ireland. In Graham, B. ed. *In Search of Ireland. A Cultural Geography*. London: Routledge, pp. 192-212.

Graham, B., Ashworth, G.J. & Tunbridge, J.E. (2000) *Geography of Heritage: Power, Culture & Economy.* London: Hodder Headline Group.

Green, M. (2000) *A Landscape Revealed. 10,000 Years on a Chalkland Farm*. Gloucestershire: Tempus Publishing Ltd.

Green, R.E., Cornell, S.J., Scharlemann, J.P.W. and Balmford, A. (2005) Farming and the Fate of Wild Nature. *Science*, 307, pp. 550-555.

Grigg, D. (1989) *English Agriculture. An Historical Perspective*. Oxford: Basil Blackwell Ltd.

Gunning, G. (2006) REPS 4 aiming for 64,000. In *Farmers Journal*. Available online at www.farmersjournal.ie/2006/0722/farmmanagement/environment/feature.shtml [21/01/09].

Halfacree, K. (1999) A new space or spatial effacement? Alternative futures for the post-productivist countryside. In Walford, N., Everitt, J. amd Napton, D. eds. *Reshaping the Countryside: Perceptions and Processes of Rural Change*. Wallingford: CAB International, pp. 67-76.

Halfacree, K. (2003) Landscapes of Rurality: rural others/other rurals. In Robertson, I. & Richards, P. eds. *Studying Cultural Landscapes*. London: Arnold, pp. 141-164.

Hall, V.A. (2005) The vegetation history of monastic and secular sites in the midlands of Ireland over the last two millennia. *Vegetation History and Archaeobotany*, 15, pp. 1-12.

Halton, P. (1993) Tourism Usage Issues in the Burren, County Clare. *Irish Geography*, 26 (2), pp. 158-169.

Hanley, N., Whitby, M. and Simpson, I. (1999) Assessing the success of agri-environmental policy in the UK. *Land Use Policy*, 16, pp. 67-80.

Hardy, D. (1988) Historical Geography and Heritage Studies. *Area* 20 (4), pp. 333-338.

Harrison, C.M., Burgess, J. and Clark, J. (1998) Discounted knowledges: farmers' and residents' understandings of nature conservation goals and policies. *Journal of Environmental Management*, 54, pp. 305-320.

Harrison-Mayfield, L., Dwyer, J. and Brooks, G. (1998) The socio-economic effects of the Countryside Stewardship Scheme in South East England. *Journal of Agricultural Economics*, 29 (4), pp. 413-432.

Harvey, D. (2006) Landscape as Heritage and a Recreational Resource. In Kain, R.J.P. ed. *England's Landscape. The South West*. London: HarperCollins, pp. 207-228.

Hayes, R.H. (1958) Romano-British Discoveries at Crayke, N.R. Yorks. *Yorkshire Archaeological Journal*, 157, pp. 90-98.

Hennessy, T. and Rehman, T. (2007) An investigation into the Factors Affecting the Occupational Choices of Nominated Heirs in Ireland. *Journal of Agricultural Economics*, 58 (1), pp. 61-75.

Hennessy, T., Shrestha, S. and Farrell, M. (2008) Quantifying the viability of farming in Ireland: can decoupling address the regional imbalances? *Irish Geography* 41 (1), pp. 29-47.

Heritage Council (An Chomhairle Oidhreachta) (2006) *Assessment of Landscape change and effects on Archaeology and an Assessment of Habitat Survey in the Burren, Co. Clare. Final Report*, Dublin: ERA-Maptec Ltd.

Heritage Council (An Chomhairle Oidhreachta) (2007) *A Review of Research Needs in Irish Archaeology*. Dublin: Heritage Council.

Heritage Council (2008*) Heritage Council's Policy Paper on Agriculture and the National Heritage*. Available online at www.heritagecouncil.ie/publications/agriculture/rural.html [10/07/08].

Heritage Council (2009) *Heritage Outlook*. Available online at www.heritagecouncil.ie [21/07/09].

Heritage Council (2009a) *Field Monument Advisor Scheme*. Available online at www.heritagecouncil.ie/archaeology/heritage-council-initiatives/field-monument-advisor-scheme/ [21/07/09].

Herity, M. (1987) A Survey of the Royal Site of Cruachain in Connacht 111. Ringforts and Ecclesiastical Sites. *Journal of the Royal Society of Antiquaries of Ireland*, 117, pp. 125-141.

Hewison, R. (1987) *The Heritage Industry. Britain in a Climate of Decline*, Methuen, London.

Hindley, R. (1994) Clear Island (Oileán Chléire) in 1958: a study in geolinguistic tradition. *Irish Geography*, 27, pp. 97-106.

Hodge, I. (2001) Beyond agri-environmental policy: towards an alternative model of rural environmental governance. *Land Use Policy*, 18, pp. 99-111.

Hodge, I. and Reader, M. (2009) The Introduction of Entry Level Stewardship in England: Extension or dillution in agri-environmental policy? awaiting publication in *Land Use Policy*. Available online at www.sciencedirect.com.ezproxy.liv.ac.uk/science [03/09/09].

Holbeche, B.J. (1986) Ancient Monuments and the Farmer. In Hughes, M. and Rowley, L. eds. *The Management and Presentation of Field Monuments*. Oxford: Oxford University Department for External Studies, pp. 33-38.

Holdaway, E. and Smart, G. (2001) *Landscapes at Risk? The Future for Areas of Outstanding Natural Beauty*. London: Spon Press.

Holloway. J.C. (1983) *The Business of Tourism*. 7th edition. Essex: Pearson Education Limited.

Holloway, L. (2000) Hell on earth and paradise all at the same time: the production of smallholding space in the British countryside. *Area*, 32 (3), pp. 307-315.

Holloway, L. (2004) Showing and telling farming: agricultural shows and re-imaging British agriculture. *Journal of Rural Studies*, 20, pp. 319-330.

Holtorf, C. and Ortman, O. (2008) Endangerment and Conservation Ethos in Natural and Cultural Heritage: The Case of Zoos and Archaeological Sites. *International Journal of Heritage Studies*, 14 (1), pp. 74-90.

Horton, J. (2008) Producing *Postman Pat*: The popular cultural construction of idyllic rurality. *Journal of Rural Studies*, 24, pp. 389-398.

Hughes, M. and Rowley, L. eds. (1986) *The Management and Presentation of Field Monuments*. Oxford: Oxford University Department for External Studies.

Huylenbroek, Van. G. and Whitby, M. eds. (1999) *Countryside Stewardship: Farmers, Policies and Markets*. Oxford: Pergamon.

Huylenbroek, Van. G., Coppens, A. and Whitby, M. (1999) Introduction to research of Countryside Stewardship Policies. In Huylenbroek, Van. G. and Whitby, M. eds. *Countryside Stewardship: Farmers, Policies and Markets*. Oxford: Pergamon, pp. 1-19.

Hynes, S., Farrelly, N., Murphy, E. and O'Donoghue, C. (2008) Conservation under the Irish Rural Environmental Protection Scheme: What land cover types are being protected? *The Rural Economy Research Centre Working Paper Series* 08-WP-RE-04. Carlow: Teagasc.

Jeličić, L. and O'Connell, M. (1992) History of vegetation and land use from 3200 BP to the present in the north-west Burren, a karstic region of western Ireland. *Vegetation History and Archaeobotany*, 1, pp. 119-140.

Johnson, N.C. (2008) Public Memory. In Duncan, J.S., Johnson, N.C. & Schein, R.H. eds. *A Companion to Cultural Geography*. Oxford: Blackwell Publishing, pp. 316-327.

Jones, C. (2006) *The Burren and the Aran Islands. Exploring the Archaeology*. First published 2004. Cork: The Collins Press.

Jones, C. (2007) *Temples of Stone. Exploring the Megalithic Tombs of Ireland*. Cork: The Collins Press.

Jones, O. (1995) Lay discourses of the rural: development and implications for rural studies. *Journal of Rural Studies*, 11, pp. 35-49.

Juntti, M. and Potter, C. (2002) Interpreting and Reinterpreting Agri-Environmental Policy: Communication, Trust and Knowledge in the Implementation Process. *Sociologia Ruralis*, 42 (3), pp. 215-232.

Kain, R.J.P. ed. (2006) *England's Landscape. The South West*. London: HarperCollins.

Kelly, C. (2007) Tourism and Heritage. In Bartley, B. & Kitchen, R. eds. *Understanding Contemporary Ireland*. London: Pluto Press, pp. 170-180.

Kenna, C. (2005) Archaeological features. In *Farmers Journal*. Available online at www.farmersjournal.ie/2--5/0917/farmmanagement/environment/ [25/11/08].

Killarney National Park Education Centre. Available online at http://homepage.eircom.net/~knp/intro/index.htm [02/06/09].

Kleijn, D. and Sutherland, W.J. (2003) How effective are European agri-environment schemes in conserving and promoting biodiversity? *Journal of Applied Ecology*, 40, pp. 947-969.

Kneafsey, M. (1995) A Landscape of Memories. Heritage and Tourism in Mayo. In Kockel, U. ed. *Landscape, Heritage and Identity: Case Studies in Irish Ethnography*. Liverpool: Liverpool University Press, pp. 135-153.

Kneafsey, M. (1994) The Cultural Tourist. Patron Saint of Ireland? In Kockel, U. ed. *Culture, Tourism and Development. The Case of Ireland*. Liverpool: Liverpool University Press, pp. 103-116.

Kockel, U. ed. (1995*) Landscape, Heritage and Identity: Case Studies in Irish Ethnography*. Liverpool: Liverpool University Press.

Kockel, U. ed. (1994) *Culture, Tourism and Development. The Case of Ireland*. Liverpool: Liverpool University Press.

Krippendorf, J. (1987) *The Holiday Makers. Understanding the Impact of Leisure and Travel*. Oxford: Butterworth-Heinemann.

Leask, A. & Fyall, A. eds. (2006) *Managing World Heritage Sites.* Oxford: Butterworth-Heinenmann.

Lee, J. (2007) Experiencing landscape: Orkney hill land and farming. *Journal of Rural Studies*, 23, pp. 88-100.

Léon, Y. (2005) Rural development in Europe: a research frontier for agricultural economists. *European Review of Agricultural Economics* 32, pp. 301-317.

Longford Leader (2009) *Farmers in mass protest over REPS cuts*. Available online at www.longford.ie/repdcuts.html [28/08/09].

Lowe, P., Buller, H. and Ward, N. (2002) Setting the next agenda? British and French approaches to the second pillar of the Common Agricultural Policy. *Journal of Rural Studies*, 18, pp. 1-17.

Lowenthal, D. (2008) *The Heritage Crusade and the Spoils of History*, sixth edition. Cambridge: Cambridge University Press.

Lowenthal, D. (2000) Environmental History: from the Conquest to the Rescue of Nature. In Murphy, A.B. & Johnson, D.L. ed. *Cultural Encounters with the Environment*. Oxford: Rowman & Littlefield, pp. 177-200.

Lowenthal, D. (1998) Stewardship, Sanctimony and Selfishness – A Heritage Paradox. In Arnold, J., Davies, K, and Ditchfield, S. eds. *History and heritage. Consuming the Past in Contemporary Culture*. Dorset: Donhead Publishing Ltd, pp. 169-179.

Lowenthal, D. (1979) Environmental perception: preserving the past. *Progress in Human Geography*, 3, pp. 549-559.

Lowenthal, D. (1979a) Age and Artifact. In Meinig, D.W. ed. *The Interpretation of Ordinary Landscapes*. Oxford: Oxford University Press, pp. 103-128.

Luzar, E.J. and Diagne, A. (1999) Participation in the next generation of agriculture conservation programs: the role of environmental attitudes. *Journal of Socio-Economics*, 28, pp. 335-349.

Lynch, A. (2008) The National Monuments Service (Department of the Environment, Heritage and Local Government). *Archaeology Ireland*, 22 (2), pp. 10-12.

Lysaght, L. (2005) The Burren. *Heritage Outlook*, Summer/Autumn 2005, pp. 8-12.

McDermott, C. (1998) The Potential and Protection of Archaeological Sites from Peatlands. In O'Leary, G. and Gormley, F. eds. *Towards a Conservation Strategy for the Bogs of Ireland*. Dublin: Irish Peatland Conservation Council, pp. 189 – 196.

Mac Eochaigh, G. (1994) Tourism Development at Community Level in Disadvantaged Areas. In Kockel, U. ed. *Culture, Tourism and Development. The Case of Ireland*. Liverpool: Liverpool University Press, pp. 183-188.

MacEwan, A. & MacEwan, M. (1987) *Greenprints for the Coutryside. The Story of Britain's National Parks.* London: Allen & Unwin.

McEachern, C. (1992) Farmers and Conservation: Conflict and Accommodation in Farming Politics. *Journal of Rural Studies*, 8 (2), pp. 159-171.

McKee, A.M., Bleasdale, A.J. and Sheehy Skeffington, M. (1998) The effects of different grazing pressures on the above-ground biomass of vegetation in the Connemara uplands. In

O'Leary, G. and Gormley, F. eds. *Towards a Conservation Strategy for the Bogs of Ireland*. Dublin: Irish Peatland Conservation Council, pp. 177-188.

McKercher, B., Ho, P.S.Y. and du Cros, H. (2005) Relationship between tourism and cultural heritage management: evidence from Hong Kong. *Tourism Management*, 26, pp. 539-548.

McManus, R. (1997) Heritage and Tourism in Ireland – an unholy alliance? *Irish Geography*, 30 (2), pp. 90-98.

McNally, S. (2001) Farm diversification in England and Wales – what can we learn from the farm business survey? *Journal of Rural Studies*, 17, pp. 247-257.

MAFF (2000) *Our countryside: the future. A fair deal for rural England*. Wetherby: The Department of the Environment.

MAFF (2000a) The *Countryside Stewardship Scheme. Information and How to Apply.* London: Ministry of Agriculture, Fisheries and Food.

MAFF (2007) *Terms and Conditions of the Rural Environmental Scheme (REPS) and Natura 2000 Scheme Introduced by the Minister for Agriculture and Food in implementation of Council Regulation (EC) No. 1698/2005*, dated 11th August 2007. Dublin: MAFF.

Malone, C. (2004) *Neolithic Britain and Ireland*. First published 2001. Gloucestershire: Tempus Publishing Ltd.

Martin, J. (2000) *The Development of Modern Agriculture*. Hampshire: Macmillan Press Ltd.

Masser, I., Sviden, O. and Wegener, M. (1994) What New Heritage for Which New Europe? Some contextual considerations. In Ashworth, G.J. & Larkham, P.J. eds. *Building a New Heritage: Tourism, Culture and Identity in the New Europe*. London: Routledge, pp. 31-43.

Matthews, A. (1986) Ireland: Rural development in an agrarian society. *European Rural Agricultural Economics*, 13, pp. 367-389.

Matthews, A. (2007) Socio-Economic sustainability: High Labour input, limited returns? presentation to the *BurrenLIFE Conference* 'Farming for Conservation – Supporting the Future' February 2008, Co Clare.

Matthews, A. (2008) *European Rural Development Policy – Implications for Agri-environmnetal Schemes*. Conference presentation at Teagasc National REPS Conference, Tullamore, 6th November 2008. Available online at www.teagasc.ie/publications/2008/20081110/reps2008_paper03.asp [30/11/08].

Matless, D. (1998) *Landscape and Englishness*. London: Reaktion Books Ltd.

Matthews, F. (2008) Review of Policy and Practice of Archaeology in Ireland. *Archaeology Ireland*, 22 (2), pp. 15-16.

Mayo Advertiser (2009) *REPS 4 delay disgraceful says Holmes*. Available online at www.advertiser.ie/mayo/article/10005 [28/08/09].

Meath Chronicle (2009) *Farmers Protest Outside Government TD's Offices Over REPS 4 Cuts*. Available online at www.meathchronicle.ie/news/kells/articles/2009/07/15/389551-farmers-protest-outside-govt-tds-offices-over-reps-4-cuts/ [28/08/09].

Meert, H., van Huylenbroek, G., Vernimmen, T., Boutgeois, M. and van Hecke, E. (2005) Farm household survival strategies and diversification on marginal farms. *Journal of Rural Studies*, 21, pp. 81-97.

Meinig, D.W. ed. (1979) *The Interpretation of Ordinary Landscapes*. Oxford: Oxford University Press.

Meinig, D.W. (1979) The Beholding Eye. In Meinig, D.W. ed. *The Interpretation of Ordinary Landscapes*. Oxford: Oxford University Press, pp. 33-48.

Meinig, D.W. (1979a) Symbolic Landscape. In Meinig, D.W. ed. *The Interpretation of Ordinary Landscapes*. Oxford: Oxford University Press, pp. 164-192.

Mighall, T.M., Timpany, S., Blackford, J.J., Innes, J.B., O'Brien, C.E., O'Brien, W. and Harrison, S. (2008) Vegetation change during the Mesolithic and Neolithic on the Mizen Peninsula, Co. Cork, south-west Ireland. *Vegetation History and Archaeobotany*, 17, pp. 617-628.

Millar, S. (2006) Stakeholders and Community Participation. In Leask, A. & Fyall, A. eds. *Managing World Heritage Sites*. Oxford: Butterworth-Heinenmann.

Mingay, G. ed. (1993) *The Rural Idyll*. London Routledge.

Mooney, P. (2005) Tourism potential for Kildare farmers. In *Farmers Journal*. Available online at www.farmersjournal.ie/2005/0416/ruralliving/countrylifestyle/careerprofiles [25/11/08].

Mooney, P. (2009) Good news on REPS4 scheme. In *Farmers Journal.* Available online at www.farmersjournal.ie/2009/0124/news/currentedition/topstory.shtml [28/08/09].

Morgan Evans, D. (1986) The Management of Archaeological Sites. In Hughes, M. and Rowley, L. eds. *The Management and Presentation of Field Monuments*. Oxford: Oxford University Department for External Studies, pp. 9-16.

Morris, C. (2004) Networks of agri-environmental policy implementation: a case study of England's Countryside Stewardship Scheme. *Land Use Policy*, 21, pp. 177-191.

Morris, C. (2006) Negotiating the boundary between state-led and farmer approaches to knowing nature: An analysis of UK agri-environment schemes. *Geoforum*, 37, pp. 113-127.

Morris, C. and Potter, C. (1995) Recruiting the new conservationists: farmers' adoption of agri-environment schemes in the UK. *Journal of Rural Studies*, 11, pp. 51-63.

Morris, C. and Young, C. (1997) Towards environmentally beneficial farming? An evaluation of the Countryside Stewardship Scheme. *Geography* 82 (4), pp. 305-316.

Mount, C. (2002) The Irish Heritage Council. *Antiquity*, 76, pp. 485-492.

Munton, R. and Marsden, T. (1991) Occupancy change and the farmed landscape; an analysis of farm level trends 1970-85. *Environment and Planning*, 23, pp. 499-510.

Murphy, A.B. & Johnson, D.L. ed. (2000) *Cultural Encounters with the Environment*. Oxford: Rowman & Littlefield.

Nash, C. (1993) Embodying the Nation – The West of Ireland Landscape and Irish Identity. In O'Connor, B. and Cronin, M. eds. *Tourism in Ireland: A Critical Perspective*. Cork: Cork University Press, pp. 86-112.

National Parks and Wildlife Service, *National Parks*. Available online at www.npws.ie/National Parks/ [02/06/09]

National Rural Network (2009) Available online at www.nrn.ie/environment-countryside/2009/06/reps-4-a-planners-view/ [28/08/09].

National University of Ireland, Maynooth, Teagasc and University College Dublin (2005) *Rural Ireland 2025. Foresight Perspectives*. Dublin: COFORD.

Natural England (2008) *Entry Level Stewardship Handbook*. Available at www.naturalengland.org.uk [17/04/09].

Natural England Board Meeting (9). 13th February 2008, Paper Number PU09 09.

Natural England (2009) *Environmental Stewardship Update*, Natural England, Issue 4. Available online at www.naturalengland.org.uk/ourwork/farming/funding/es/hls/targetting [29/07/09].

Natural England (2009a) Job Advertisement. Available online at www.itneedsyou.co.uk/html/theRole.htm [17/04/09].

Natural England (2009b) Job Advert. Available online at www.naturalengland.org.uk/about_us/jobs/irc40669.aspx [08/08/09].

Newby, P.T. (1994) Tourism. Support or Threat to Heritage? In Ashworth, G.J. & Larkham, P.J. eds. *Building a New Heritage: Tourism, Culture and Identity in the New Europe*. London: Routledge, pp. 206-228.

Ní Laoire, C. (2002) Young farmers, masculinities and change in rural Ireland. *Irish Geography*, 35 (1), pp. 16-27.

Nugent, A. (2000) Role of the Heritage Council. In *Farmers Journal* 5th February 2000. Available online at www.farmersjournal.ie/2000/0205/environment/ [25/11/08].

Nugent, A. (2000) Burren farmers are REPS enthusiasts. In *Farmers Journal* 22nd July 2000. Available online at www.farmersjournal.ie/2000/0729/environment/news [25/11/08].

O'Brien, J. (2006) Fischler forges ahead. In *Farmers Journal*. Available online at www.farmersjournal.ie/2003/1122/farmbusiness/business/eu&government.shtml [25/11/08]

O'Brien, M. and Hennessey, T. (2007) *An Examination of the contribution of off-farm income to the viability and sustainability of farm households and the productivity of farm business*. Dublin: National Development Plan.

O'Brien, W. (1996) *Bronze Age Copper Mining in Britain and Ireland*. Buckinghamshire: Shire Archaeology.

O'Connell, J.W. and Korff, A. eds. (1991) *The Book of the Burren*. Galway: Tír Eolas.

O'Connor, B. and Cronin, M. eds. (1993) *Tourism in Ireland: A Critical Perspective*. Cork: Cork University Press.

O'Connor, B. (1993) Myths and Mirrors. Tourist Images and National Identity. In O'Connor, B. and Cronin, M. eds. *Tourism in Ireland: A Critical Perspective*. Cork: Cork University Press, pp. 68-85.

Ó Cuív, É. (2008) *Speech on Rural Development Seanad Éireann* 11/11/08. Available online at www.pobail.ie/en/MinistersSpeeches/htmltext,9581,en.html [17/01/09].

O'Keeffe, T. (2001) *Medieval Ireland. An Archaeology*. Gloucestershire: Tempus.

O'Leary, G. and Gormley, F. eds. (1998) *Towards a Conservation Strategy for the Bogs of Ireland*. Dublin: Irish Peatland Conservation Council.

O'Leary, G. and Gormley, F. (1998) Issues for consideration in the development of a national peatland conservation strategy for Ireland. In O'Leary, G. and Gormley, F. eds. *Towards a Conservation Strategy for the Bogs of Ireland*. Dublin: Irish Peatland Conservation Council, pp. 231-240.

Ó Ríordáin, S.P. (1979) *Antiquities of the Irish Countryside*. 5th edition. New York: Methuen.

O'Rourke, E. (2005) Landscape Planning and Community Participation: Local Lessons from Mullaghmore, the Burren National Park, Ireland. *Landscape Research*, 30 (4), pp 483-500.

O'Sullivan, M. and Kennedy, L. (1998) The survival of archaeological monuments: Trends and attitudes. *Irish Geography*, 31 (2), pp. 88-99.

Otte, M.L. ed. (2003) *Wetlands of Ireland. Distribution, ecology, uses and economic value*. Dublin: University College Dublin Press.

Overton, M. (2006) Farming, Fishing and Rural Settlements. In Kain, R.J.P. ed. *England's Landscape. The South West*. London: HarperCollins, pp. 109-130.

Park, J.R., Stabler, M.J., Jones, P.j., Mortimer, S.R., Tiffin, J.R. and Tranter, R.B. (2009) Evaluating the role of environmental quality in the sustainable rural economic development of England. *Environmental Development Sustainability*, 11, pp. 735-750.

Parker Pearson, M. (2003) *The Archaeology of Death and Burial.* Gloucestershire: Sutton Publishing.

Peters, F. (1999) Bronze Age Barrows: Factors Influencing Their Survival and Destruction. *Oxford Journal of Archaeology*, 18 (3), pp. 255-264.

Philips, J.T. (1958) An Iron Age Site at Driffield, East Riding, Yorks. *Yorkshire Archaeological Journal*, 158, pp. 183-191.

Plunkett, G. (2009) Land-use patterns and cultural change in the Middle to Late Bronze Age in Ireland: inferences from pollen records. *Vegetation History and Archaeobotany*, 18, pp. 273-295.

Pocock, D. (1997) Some reflections on World Heritage. *Observations,* 29 (3), pp. 260-268.

Pollard, J. (1989) Patterns in Irish Tourism. In Carter, R.W.G. and Parker, A.J. *Ireland: A Contemporary Geographical Perspective*. London: Routledge, pp. 301-330.

Potter, C. and Lobley, M. (1993) Helping small farms and keeping Europe beautiful. *Land Use Policy*, 10, pp. 267-279.

Pryor, F. (2005) *Flag Fen. Life and Death of a Prehistoric Landscape*. Gloucestershire: Tempus Publishing Limited.

Pryor, F. (2006) *Farmers in Prehistoric Britain*. Gloucestershire: Tempus Publishing Limited.

Quinn, B. (1994) Images of Ireland in Europe. A Tourism Perspective. In Kockel, U. ed. *Culture, Tourism and Development. The Case of Ireland*. Liverpool: Liverpool University Press, pp. 61-73.

Raftery, B. (2003) The archaeology of Irish bogs. In Otte, M.L. ed. *Wetlands of Ireland. Distribution, ecology, uses and economic value*. Dublin: University College Dublin Press, pp. 202-209.

Richards, G. and Hall, D. eds. (2000) *Tourism and Sustainable Community Development*. London: Routledge.

Richards, G. and Hall, D. (2000) The community. A sustainable concept in tourism development? In Richards, G. and Hall, D. eds. *Tourism and Sustainable Community Development*. London: Routledge, pp. 1-13.

Richards, J. (1990) *The Stonehenge Environs Project*. London: English Heritage.

Riley, M. & Harvey, D. (2005) Landscape Archaeology, Heritage and the Community in Devon: An Oral History Approach. *International Journal of Heritage Studies*, 11 (4), pp. 269-288.

Riley, M. & Harvey, D. (2007) Oral histories, farm practice and uncovering meaning in the countryside. *Social & Cultural Geography*, 8 (3), pp. 391-415.

Robertson, I. & Richards, P. eds. (2003) *Studying Cultural Landscapes*. London: Arnold.

Robson, C. (2002) *Real World Research*. 2nd edition. Oxford: Blackwell Publishing.

Royal Commission on Historical Monuments (England) (1979) *Stonehenge and its Environs*. Edinburgh: Edinburgh University Press.

Royle, S.A. (2003) Exploitation and celebration of the heritage of the Irish islands. *Irish Geography*, 36 (1), pp. 23-31.

Rumble, P. (1986) The Management of Monuments: The Overall Context. In Hughes, M. and Rowley, L. eds. *The Management and Presentation of Field Monuments*. Oxford: Oxford University Department for External Studies, pp. 1-16.

Rural Resource Development Ltd and Clare County Council (2008) *The Living Farmland. A guide to farming with nature in Clare*. Clare: Rural Resource Development Ltd.

Rynne, C. (1999) *The Industrial Archaeology of Cork City and its Environs*. Dublin: Stationery Office.

Selman, P. and Wragg, A. (1999) Local sustainability planning: from interest-driven networks to vision-driven super-networks? *Planning Practice and Research*, 14 (3), pp. 329-340.

Setten, G. (2005) Farming the Heritage: On the Production and Construction of a Personal and Practised Landscape Heritage. *International Journal of Heritage Studies*, 11 (1), pp. 67-79.

Shanahan, B. (2009) Medieval settlement, agriculture and rural economy in the O'Conor lordship of North Roscommon. Joint conference of the *Group for the Study of Irish Historic Settlement and the Agricultural History Society of Ireland*. Dublin: Drumcondra, 6th-8th March 2009.

Shaw, G. and Williams, A.M. (1994) *Critical Issues in Tourism. A Geographical Perspective*. Oxford: Blackwell.

Shoard, M. (1980) *The Theft of the Countryside*. London: Temple Smith.

Short, C. (1997) ***Meithrin Mynydd graziers survey. Final Report to the Meithrin Mynydd Project*****. Cheltenham: Countryside and Community Research Unit.**

Short, C. and Winter, M. (1998) ***Managing the use of common land. Final Report to the Department of the Environment, Transport and the Regions: Research Findings*****. Cheltenham: Countryside and Community Research Unit.**

Short, C. (1999) The problem of common land: towards stakeholder governance. ***Journal of Environmental Planning and Management*****, 42 (5), pp. 613-630.**

Short, C. (2000) Common land and ELMS: a need for policy innovation in England and Wales. ***Land Use Policy*****, 17, pp. 121-133.**

Shortall, S. and Shucksmith, M. (2001) Rural development in practice: issues arising in Scotland and Northern Ireland. ***Community Development Journal*****, 36 (2), pp. 122-133.**

Shucksmith, M., Thomson, K.J. & Roberts, D. eds. (2005) ***The CAP and the Regions: The Territorial Impact of the Common Agricultural Policy*****. Oxfordshire: CABI Publishing.**

Silverman, H. and Isbell, W.H. eds. (2008) ***Handbook of South American Archaeology*****. New York: Springer.**

Skeates, R. (2004) ***Debating the Archaeological Heritage*****. London: Duckworth.**

Slee, B., Farr, H. and Snowdon, P. (1997) The Economic Impact of Alternative Types of Rural Tourism. ***Journal of Agricultural Economics*****, 48 (2), pp. 179-192.**

Smallshire, D., Robertson, P. and Thompson, P. (2004) Policy into practice: the development and delivery of agri-environment schemes and supporting advice in England. ***Ibis*****, 146 (2), pp. 250-258.**

Smith, A. (1999) Landscapes of Power in Nineteenth Century Ireland. ***Archaeological Dialogues*****, 5, pp. 69-84.**

Smith, G.M. (1999) Spoilation of the Past: The destruction of monuments and treasure-hunting in nineteenth century Ireland. ***Peritia*****, 13, pp. 154-172.**

South West Tourism (2005) *Towards 2015. Shaping Tomorrow's Tourism*. Devon: South West Tourism.

Staaten, J. van der. (2000) Can sustainable tourism positively influence rural regions? In Richards, G. and Hall, D. eds. *Tourism and Sustainable Community Development*. London: Routledge, pp. 221-232.

Stead, I.M. (1958) The Excavation of Beaker Burials at Staxton, East Riding, 1957. *Yorkshire Archaeological Journal*, 157, pp. 129-144.

Stocks, J. (2000) Cultural tourism and the community in rural Ireland. In Richards, G. and Hall, D. eds. *Tourism and Sustainable Community Development*. London: Routledge, pp. 233-241.

Stout, G. and Stout. M (1997) Early landscapes: from prehistory to plantation. In Aalen, F.H.A., Whelan, K. and Stout, M. eds. *Atlas of the Irish Rural Landscape*. Cork: Cork University Press, pp. 31-63.

Stout, G.T. (1984) Archaeological Survey of the Barony of Ikerrin, Roscrea. Quoted in Herity, M. (1987) A Survey of the Royal Site of Cruachain in Connacht 111. Ringforts and Ecclesiastical Sites. *Journal of the Royal Society of Antiquaries of Ireland*, 117, pp. 125-141.

Stroud, D.A. (1998) Reducing the Impacts of Forestry on Peatlands. In O'Leary, G. and Gormley, F. eds. *Towards a Conservation Strategy for the Bogs of Ireland*. Dublin: Irish Peatland Conservation Council, pp. 79-90.

Sullivan, E.E. (2004) *The Irish farm in the context of the Rural Environmental Protection Scheme - an archaeological perspective*. PhD Thesis. Dublin: UCD.

SW Uplands Federation (2008) *Occasional Newsletter* October 2008, no. 2.

Taylor, J. (1994) *A Dream of England. Landscape, Photography and the Tourist's Imagination*. Manchester: Manchester University Press.

Teagasc (2004) *National Farm Survey*. Dublin: Teagasc.

Thomas, J. (2005) *Understanding the Neolithic*. 2nd edition. London: Routledge.

Thurley, S. (2005) *Chief Executive of English Heritage*. Available online at www.english-heritage.org.uk/server/show/ConWebDoc.4731 [01/09/08].

Timothy, D.J. (1996) Tourism and the Personal Heritage Experience. *Annals of Tourism Research*, 24 (3), pp. 751-754.

Tomlinson, R. (1997) Blanket Bogs. In Aalen, F.H.A., Whelan, K. and Stout, M. (1997) *Atlas of the Irish Rural Landscape*. Cork: Cork University Press, pp. 117 – 121.

Trow, S. (2004) Saving Sites from the Plough. *The Institute of Field Archaeologists Year Book and Directory*, pp. 37-38.

Tuan, Y.F. (1971) *Man and Nature*. Resource Paper no.10. Washington: Association of American Geographers.

Tuan, Y.F. (1974) *Topophilia. A Study of Environmental Perception, Attitudes and Values*. New Jersey: Prentice-Hall Inc.

Tubridy, M. (1994) Low Income Households and Tourism in Northwest Connemara. In Kockel, U. ed. *Culture, Tourism and Development. The Case of Ireland*. Liverpool: Liverpool University Press, pp. 163-69.

University College Dublin (2006) *Archaeology 2020*. Dublin: University College Dublin.

University College Dublin (2009) *Bogland. Protocol for Sustainable Peatland Management in Ireland* available online at www.ucd.ie/bogland [24/07/09].

University College Dublin (2009a) *Bogland. Protocol for Sustainable Peatland Management in Ireland* available online at www.ucd.ie/bogland/Peatlandquestions.html [24/07/09]

University of Reading (2009) *Agricultural Decline*. Available online at www.ecifm.rdg.ac.uk/agdecline.htm [15/08/09].

Urry, J. (1990) *The Tourist Gaze*. London: SAGE Publications Ltd.

Visit Britain (2008). Available online at www.tourismtrade.org.uk/MarketIntelligenceResearch/KeyTourismFacts.asp [13/11/08].

Waddell, J. (2000) *The Prehistoric Archaeology of Ireland*. Wicklow: Wordwell.

Wade-Martins, P. ed. (1994) *An Historical atlas of Norfolk*. 2nd edition. Norfolk: Norfolk Museums Service.

Walford, N., Everitt, J. and Napton, D. eds. (1999) *Reshaping the Countryside: Perceptions and Processes of Rural Change*. Wallingford: CAB International.

Walford, N. (2003) Productivism is allegedly dead, long live productivism. Evidence of continued productivist attitudes and decision making in South-East England. *Journal of Rural Studies*, 19, pp. 491-502.

Walsh, J. A. (2007) Agriculture in Transition. In Bartley, B. & Kitchen, R. eds. *Understanding Contemporary Ireland*. London: Pluto Press, pp. 158-169.

Ward, N. (2002) Representing rurality? New Labour and the electoral geography of rural Britain. *Area*, 34 (2), pp. 171-181.

Waterton, E. (2005) Whose Sense of Place? Reconciling Archaeological Perspectives with Community Values: Cultural Landscapes in England. *International Journal of Heritage Studies*, 11 (4), pp. 309-325.

Wathern, P., Young, S.N., Brown, I.W. and Roberts, D.A. (1987) Report. Upland policy and archaeological resources in North Wales. *Land Use Policy*, 4 (3), pp. 342-346.

Westmacott, R. and Worthington, T. (1984) *New Agricultural Landscapes – A Second Look*. Cheltenham: Countryside Commission.

Whelan, K. (1997) The Modern Landscape: from Plantation to Present. In Aalen, F.H.A., Whelan, K. and Stout, M. eds *Atlas of the Irish Rural Landscape.* Cork: Cork University Press, pp. 67-103.

Whittaker, J., Warren, M., Turner, M. and Hutchcroft, I. (2004) Accountability and rural development partnerships: a study of Objective 5b EAGGF funding in South West England. *Journal of Rural Studies*, 20, pp. 181-192.

Wilkinson, K., Tyler, A., Davidson, D. and Grieve, I. (2006) Quantifying the threat to archaeological sites from the erosion of cultivated soil. *Antiquity*, 80, pp. 658-670.

Willems, W.J.H. (1998) Archaeology and Heritage Management in Europe: Trends and Developments. *European Journal of Archaeology*, 1 (3), pp. 293-311.

Wilson, G.A. (1995) German Agri-Environmental Schemes – II. The MEKA Programme in Baden-Württemberg. *Journal of Rural Studies*, 11, 2, pp. 149-159.

Wilson, G.A. (1996) Farmer environmental attitudes and ESA participation. *Geoforum*, 27, 2, pp. 115-131.

Wilson, G.A. (1997) Assessing the Environmental Impact of the Environmentally Sensitive Areas Scheme: a case for using farmers' environmental knowledge. *Landscape Research*, 22 (3), pp. 303-326.

Wilson, G.A. and Hart, K. (2001) Farmer Participation in Agri-Environmental Schemes: Towards Conservation-Oriented Thinking. *Sociologia Ruralis*, 41, 2, pp. 254-274.

Winter, M. (2000) Strong policy or weal policy? The environmental impact of the 1992 reforms to the CAP arable regime in Great Britain. *Journal of Rural Studies*, 16, pp. 47-59.

Woodward, A. (2000) *British Barrows. A Matter of Life and Death*. Gloucestershire: Tempus Publishing Ltd.

Wright, P. (1985*) On Living in an Old Country. The National Past in Contemporary Britain*. London: Verso.